

Exhibit 5

O'HANLON, MCCOLLOM & DEMERATH

ATTORNEYS AND COUNSELORS AT LAW

808 WEST AVENUE
AUSTIN, TEXAS 78701
TELEPHONE: (512) 494-9949
FACSIMILE: (512) 494-9919

JUSTIN DEMERATH

jdemerath@808west.com

February 13, 2017

Via email bkarp@paulweiss.com

Brad S. Karp
Chairman
PAUL, WEISS, RIFKIND, WHARTON & GARRISON LLP
1285 Avenue of the Americas
New York, New York 10019-6064

Re: *Sagapolutele v. Nat'l Football League, et al.*, Case No. 17-cv-00348 (E.D. Pa.)

Mr. Karp:

In response to your letter dated January 26, 2017 and following up on our discussion via telephone on January 30, 2017, please accept this correspondence as part of our continued, good-faith efforts to confer regarding the reasons we filed suit on behalf of Yvonne Sagapolutele, the widow of Pio Sagapolutele. The above-captioned action against the NFL Defendants is not barred because our client was not given an adequate opportunity to exclude herself from the class. It is our sincere hope that this correspondence will allow us to find an equitable and mutually beneficial path forward for both of our clients.

Please allow me to give you a brief introduction to my clients. Pio Sagapolutele retired from the NFL in 1999 after playing as a starting lineman on both sides of the line, as well as nose tackle, for eight NFL seasons. He played for the Browns, Patriots, and Saints, and started in Super Bowl XXXI for the Patriots. He died at the age of 39. Pio Sagapolutele is survived by his wife of 18 years at the time of his passing, Yvonne, and their four children. As evidenced in the attached letter, it is the opinion of Board Certified Neuropathologist, Dr. Ronald Hamilton, that Mr. Sagapolutele suffered from chronic traumatic encephalopathy ("CTE"). He passed away on June 7, 2009.

We understand that absent class members may be bound by a class settlement and could be barred from bringing later claims *if* they are adequately represented and afforded certain due process protections.¹ When absent class members have had a full and fair hearing

¹ *Hansberry v. Lee*, 311 U.S. 32, 42–43 (1940); *Gotthelf v. Toyota Motor Sales, U.S.A.*, 525 Fed. Appx. 94, 99 (3d Cir. 2013).

and had their procedural rights protected during the approval of the settlement agreement, an absent class member may not challenge a final settlement agreement.² However, in circumstances when the adopted procedures did not fairly protect the interests of absent class members, those class members are not barred from bringing claims.³

Class action procedures do not fairly protect the interests of absent class members when the absent class members have not been provided meaningful notice and an adequate opportunity to exclude themselves from the class.⁴ A notice that does not inform absent class members of the fundamental reasons they may want to object to the settlement or an adequate opportunity to present their objections violates due process.⁵

Ms. Sagapolutele was not given a meaningful opportunity to opt out of the class because the terms of the Original Settlement Agreement were materially changed after the opt out period had concluded. Whether intentionally or inadvertently, the terms of the settlement agreement were materially changed after the fairness hearing in a manner that arguably add inequitable restrictions the opportunity to obtain a Qualifying Diagnosis of Death with CTE as that term came to be defined in the Amended Settlement Agreement. This change was made without notice to Ms. Sagapolutele and without providing her an opportunity to opt out after the change was made.

Under the terms of the Class Action Settlement Agreement as of June 25, 2014 (“Original Settlement Agreement”), Pio and Yvonne Sagapolutele were included as absent class members of Subclass 1. The Original Settlement Agreement listed “Death with CTE” as one of the “Qualifying Diagnoses eligible for a Monetary Award.” These terms have not changed.

However, an important change was made to the procedure for obtaining a Qualifying Diagnosis for Death with CTE. Exhibit 1 to the Original Settlement Agreement *originally* stated that a Qualifying Diagnosis for Death with CTE required a post-mortem diagnosis of CTE made by a board-certified neuropathologist:

5. Death with Chronic Traumatic Encephalopathy (CTE)

For Retired NFL Football Players who died prior to the date of the Preliminary Approval and Class Certification Order, a post-mortem diagnosis of CTE made by a board-certified neuropathologist.

² *In re Diet Drugs Prods. Liab. Litig.*, 431 F.3d 141, 146–47 (3d Cir. 2005).

³ *Id.* (quoting *Hansberry*, 311 U.S. at 42) (holding that “there has been a failure of due process only in those cases where it cannot be said that the procedure adopted, fairly insures the protection of the interests of absent parties who are to be bound by it”).

⁴ *Eisen v. Carlisle & Jacquelin*, 417 U.S. 156, 173 (1974).

⁵ *See id.* at 173–74; *see also Mullane v. Central Hanover Bank & Trust Co.*, 339 U.S. 306, 314–18 (1950) (holding that due process was violated when notice was not sent to individual class members where class members’ names and addresses could be ascertained through reasonable effort).

Importantly, *the Original Settlement Agreement placed no deadline on the post-mortem diagnosis*. Thus, under the Original Settlement Agreement any class member (including Ms. Sagapolutele) would currently be able to obtain a Qualifying Diagnosis for Death with CTE.

On July 9, 2014, the Court issued an order approving the Long-Form Notice. The Long-Form Notice stated that monetary awards would be available for a diagnosis of Death with CTE, and the expressly stated that a Qualifying Diagnosis may occur at any time until the end of the 65-year term of the Monetary Award Fund:

14. WHAT DIAGNOSES QUALIFY FOR MONETARY AWARDS?

Monetary awards are available for the diagnosis of ALS, Parkinson's Disease, Alzheimer's Disease, Level 2 Neurocognitive Impairment (*i.e.*, moderate Dementia), Level 1.5 Neurocognitive Impairment (*i.e.*, early Dementia) or Death with CTE (the "Qualifying Diagnoses"). A Qualifying Diagnosis may occur at any time until the end of the 65-year term of the Monetary Award Fund.

The plain language of the Long-Form Notice provided a 65-year deadline to obtain a Qualifying Diagnosis. Thus, under the Long-Term Notice Ms. Sagapolutele would be able to obtain a Qualifying Diagnosis for Death with CTE at any time.

The Court conducted a fairness hearing regarding the Original Settlement Agreement on November 19, 2014. After that fairness hearing, the Court issued an Order regarding changes meant to "enhance the fairness, reasonableness, and adequacy of the proposed Class Action Settlement Agreement." In that order, the Court specifically requested that Retired NFL Players who died prior to the final approval of the Settlement should be able to recover an award in addition to Retired NFL Players who died prior to the preliminary approval:

- The Qualifying Diagnosis of Death with CTE should include Retired NFL Football Players who die between preliminary approval and final approval of the Settlement;

This proposed change to the Original Settlement Agreement would not have imposed a time restriction on a post-mortem diagnosis for CTE.

On February 13, 2015, an Amended Class Action Settlement Agreement ("Amended Settlement Agreement") was filed with the Court. The Amended Settlement Agreement contained the Court's suggested change. However, the Amended Settlement Agreement also included another change that had not been requested by the Court and appears to directly conflict with the Court's expressed desire to "enhance the fairness, reasonableness, and adequacy of the proposed Class Action Settlement Agreement." Specifically, the Amended Settlement Agreement appears to impose — *for the first time and without notice to class members* — a deadline on the post-mortem diagnosis:

5. Death with Chronic Traumatic Encephalopathy (CTE)

For Retired NFL Football Players who died prior to the Final Approval Date, a post-mortem diagnosis of CTE made by a board-certified neuropathologist prior to the Final Approval Date, provided that a Retired NFL Football Player who died between July 7, 2014 and the Final Approval Date shall have until 270 days from his date of death to obtain such a post-mortem diagnosis.

Thus, contrary to the Original Settlement Agreement and Long-Form Notice, the Amended Settlement Agreement appears to arguably impose a deadline of April 22, 2015 (the Final Approval Date) for any post-mortem diagnosis. No such deadline had ever been disclosed to Ms. Sagapolutele.

On March 31, 2015, a notice regarding the newly added language of the Amended Settlement Agreement was apparently sent to all class members who had opted out, informing them of the augmented time line and inviting them to opt back into the settlement. *See* Doc. No. 6500-1; Case No. 2:12-md-02323-AB. No corresponding notice regarding the time restrictions added to the Amended Settlement Agreement was sent to class members advising them of the changes and providing them an opportunity to opt out of the settlement. Certainly, Yvonne Sagapolutele received no notice of a change to the settlement agreement that would have arguably required her to obtain a diagnosis prior to April 22, 2015.

For the foregoing reasons, our client was not given a meaningful opportunity to opt out of the settlement and cannot bound by the terms of the Amended Settlement Agreement. Nevertheless, if your client would like to include Yvonne Sagapolutele in the terms of the Original Settlement Agreement, or alternatively hold this case in abeyance without prejudice until such time as the Settlement Administrator has taken a position on this issue, we are certainly amenable to discussing that with our client.

I welcome the opportunity to learn your position on this issue, and respectfully request that we re-convene our telephone conversation after you have had sufficient time to review our position. I would offer to hold off on service of this lawsuit, provided that the conversation can take place in the reasonable future. Please advise when you would be available to further discuss in the forthcoming two weeks.

Sincerely,

Justin Demerath

Louis F. D'Onofrio

cc: Christopher A. Seeger (email)
Craig Eiland (email)



**University of Pittsburgh
Physicians, Department
of Pathology**

Division of Neuropathology

Clayton A. Wiley, MD, PhD
Director

Charleen T. Chu, MD, PhD

Robert H. Garman, DVM

Ronald Hamilton, MD

Julia Kofler, MD

Scott M. Kulich, MD, PhD

David Lacomis, MD

Geoffrey Murdoch, MD, PhD

Gutti R. Rao, MD

UPMC Presbyterian
Room S701 Scaife Hall
200 Lothrop Street
Pittsburgh, PA 15213
T 412-624-9415
F 412-624-5610

Re: Pio Sagapolutele

To Whom It May Concern:

My name is Ronald L. Hamilton, M.D. I am a board-certified neuropathologist. Attached to this correspondence is a true and correct copy of my curriculum vitae describing my qualifications.

In my professional opinion, Pio Sagapolutele suffered from Chronic Traumatic Encephalopathy. This post-mortem diagnosis is based on a reasonable medical probability.

Sincerely,

A handwritten signature in black ink, appearing to read "R. L. Hamilton". The signature is stylized with a large, looped "H" and a distinct "R".

Ronald L. Hamilton, M.D.

Ronald L. Hamilton, M.D.

1/2/2017

CURRICULUM VITAE**BIOGRAPHICAL**

| | | | |
|--------------------------|--|---------------------|--------------------|
| Name: | Ronald Lee Hamilton | Birth Date: | September 20, 1959 |
| Home Address: | 6 Graham Place Pittsburgh, PA 15232 | Birth Place: | Omaha, Nebraska |
| Marital status: | single | Citizenship: | USA |
| Home Phone | 412-310-9874 | | |
| Business Address: | Division of Neuropathology A724.1 Scaife Hall 200 Lothrop Street Pittsburgh, PA 15213 | | |
| Business Phone: | 412-624-6610 | | |
| Business Fax: | 412-624-5488 | | |
| e-mail address | hamiltonrl@upmc.edu | | |

EDUCATION AND TRAINING

| | | | |
|-----------|--|--|------------|
| 1977-1985 | University of Nebraska-Lincoln | B.S. | Psychology |
| 1985-1989 | University of Nebraska Medical Center | M.D. | |
| 1989-1991 | University of California, San Diego Program Director, David Bailey | Resident Anatomic Pathology | |
| 1991-1993 | University of California, San Diego Program Director, Henry C. Powell | Resident Neuropathology | |
| 1993-1994 | University of Pittsburgh Program Director, Clayton A Wiley | Fellow Neuropathology | |
| 1994-1995 | University of Pittsburgh Program Director, Michael Zigmond | Fellow: NIMH Training Grant in Neuroscience | |

APPOINTMENTS AND POSITIONS:

| | |
|--------------|---|
| 1995-2002 | University of Pittsburgh School of Medicine -Assistant Professor of Pathology |
| 2002-present | University of Pittsburgh School of Medicine -Associate Professor of Pathology |

DISTRIBUTION OF % TIME

| | |
|--------------------------------|-------------|
| Research | 20% |
| Other scholarly activity | 8% |
| Teaching | 10% |
| Clinical | 35% |
| Combined clinical and teaching | 20% |
| Service activities | 5% |
| Administrative activities. | 2% |
| TOTAL | 100% |

Ronald L. Hamilton, M.D.

CERTIFICATION and LICENSURE

SPECIALTY CERTIFICATION

| | | |
|---|--------------------|----------|
| American Board of Pathology | Anatomic Pathology | 5/23/96 |
| American Board of Pathology | Neuropathology | 5/23/96 |
| American Board of Pathology – recertification | Neuropathology | 1/1/2014 |

MEDICAL or OTHER PROFESSIONAL LICENSURE

| | |
|------|---|
| 1990 | California Medical License (G69731) expired |
| 1993 | Pennsylvania Medical License (MD-049717-L) |
| 2009 | Indiana Medical License (01067332A) |

MEMBERSHIPS IN PROFESSIONAL AND SCIENTIFIC SOCIETIES

| | |
|---------|--|
| 1992 | American Association for the Advancement of Science |
| 1993 | American Association of Neuropathology |
| 1993 | International Society of Neuropathology |
| 1994 | College of American Pathologists (CAP) |
| 1995-97 | CAP Neuropathology Subcommittee |
| 1998 | Children's Cancer Group, Study Committee for CCGB975 |
| 1999 | Society for Neuroscience |

HONORS

| | |
|--|-----------|
| Nominated "Teacher of the Year: Anatomic Pathology" | 1997 |
| Nominated "Teacher of the Year: Anatomic Pathology" | 1998 |
| Nominated "Teacher of the Year: Anatomic Pathology" | 1999 |
| Nominated "Teacher of the Year: Anatomic Pathology" | 2000 |
| Nominated "Teacher of the Year: Anatomic Pathology" | 2001 |
| Nominated "Teacher of the Year: Anatomic Pathology" | 2002 |
| UPMC ACES Award winner (ACES is an Award for Clinical Excellence and Service and is given to about 10 physicians per year at UPMC) | 2003 |
| Letter of appreciation from Chief Residents | 1997-1998 |
| AP Pathology "TEACHER OF THE YEAR" | 2004-05 |

PUBLICATIONS

Refereed Articles

1. Esch O, Spinosa JC, **Hamilton RL**, Crombie DL, Schteigart CO, Rondinone JF, D'Agostino HB, Lillienau J and Hofmann AF: Acute effects of topical methyl tert-butyl ether or ethyl propionate on gallbladder histology in animals: a comparison of two solvents for contact dissolution of cholesterol gallstones. *Hepatology* 16 (4):984-991, 1992.
2. Anders KH, Becker PS, Holden JK, Sharer LR, Cornford ME, Hansen LA, **Hamilton R**, Vinters, HV: Multifocal necrotizing leukoencephalopathy with pontine predilection in immunosuppressed patients: a clinicopathologic review of sixteen cases. *Human Pathology* 24:897-904, 1993.
3. **Hamilton RL**, Achim C, Grafe MR, Fremont JC, Miners D, Wiley CA: Herpes simplex virus brainstem encephalitis in an AIDS patient. *Clinical Neuropathology*, 14: 45-50, 1995.

Ronald L. Hamilton, M.D.

4. Rose J, Haskell WL, Gamble JG, **Hamilton RL**, Brown DA, Rinsky L: Muscle pathophysiology and clinical measures of disability in children with cerebral palsy. *Journal of Orthopedic Research*, 12(6): 758-768, 1994.
5. **Hamilton RL**, Grafe MR: Complete absence of the cerebellum: a report of two cases. *Acta Neuropathologica* 88 (3): 258-261, 1994.
6. **Hamilton RL**, Haas RH, Nyhan WL, Powell HC, Grafe MR: The neuropathology of propionic academia: a report of two additional cases. *Journal of Child Neurology* 10(1): 25-30, 1995.
7. Haas RH, Marsden DL, Capistrano-Estrada S, **Hamilton RL**, Grafe MR, Wong W, Nyhan WL: Acute basal ganglia infarction in propionic acidemia. *Journal of Child Neurology* 10(1) 18-22, 1995.
8. Kupperman BD, Quiceno JI, Wiley C, Hesselink J, **Hamilton R**, Keefe K, Garcia R, Freeman WR: Clinical and histopathologic study of varicella zoster virus retinitis in patients with the acquired immunodeficiency syndrome. *American Journal of Ophthalmology* 118:589-600, 1994.
9. Adelson PD, Robichaud P, **Hamilton RL**, Kochanek PM. A Model of Diffuse Traumatic Brain Injury in the Immature Rat. *J Neurosurg* 85:877-884, 1996.
10. Alper G, Crumrine PK, **Hamilton RL**, Albright L, Wald ER. An unusual case of inflammatory spinal epidural mass (Castleman's syndrome) *Pediatric Neurology* 15: 60-2 , 1996
11. Adelson PD, Firlik KS, Firlik AD, **Hamilton RL**. A meningeal cyst of the thoracic spine presenting as prolonged paresis after ankle injury: case report. *Neuropediatrics* 27:207-210, 1996.
12. Cramer SC, Segal A, **Hamilton RL**, Schmahman J, Ma J. Leukoencephalitis Due to Varicella Zoster Virus: Report of a Case and Review of Clinical Features. *Contemporary Neurology*, 1, 1996 (electronic journal).
13. Mansfield RT, Schiding JK, **Hamilton R**, Kochanek PM: Effects of hypothermia on traumatic brain injury in immature rats. *J Cerebral Blood Flow Metabo* 16(2): 244-252, 1996.
14. Pollack IF, Campbell JW, **Hamilton RL**, Martinez AJ, Bozik ME. Proliferation index as a predictor of prognosis in malignant gliomas of childhood. *Cancer* 79:849-856, 1996
15. Pollack IF, **Hamilton RL**, Finkelstein SD, Campbell JW, Martinez AJ, Sherwin RN, Bozik ME, Gollin SM. The relationship between tp53 mutations and overexpression of p53 and prognosis in malignant gliomas of childhood. *Cancer Research* 57:304-309, 1997.
16. Ikonovic MD, Mizukami K, Davies P, **Hamilton R**, Sheffield R, Armstrong DM. The loss of GluR2(3) immunoreactivity preceded neurofibrillary tangle formation in the entorhinal cortex and hippocampus of Alzheimer brains. *J Neuropath Exp Neurol* 56:1018-1027, 1997.
17. Bredel M, Pollack IF, Campbell JW, **Hamilton RL**: Basic fibroblast growth factor as a predictor of prognosis in pediatric high-grade gliomas. *Clinical Cancer Research* 3:2157-2164, 1997
18. Blatt J, **Hamilton RL**: Neurodevelopmental anomalies in children with neuroblastoma. *Cancer* 82: 1603-8, 1998.
19. Fukui MB, Livstone BJ, Meltzer CC, **Hamilton RL**: Hemorrhagic presentation of untreated primary central nervous system lymphoma in the acquired immunodeficiency syndrome. *Am J Roentgenol* 170:1114-1115, 1998..
20. Bredel M, Pollack IF, **Hamilton RL**, James CD: Epidermal growth factor receptor (EGFR) and gene amplification in high-grade non-brainstem gliomas of childhood. *Clin Can Res* 5:1786-92, 1999

Ronald L. Hamilton, M.D.

21. Gerszten PC, Pollack IF, **Hamilton RL**. Primary parafalcine chondrosarcoma in a child. *Acta Neuropathologica* 95:111-4, 1998.
22. Pollack IF, **Hamilton RL**, Fitz C, Orenstein DM. An intrasylvian "fibroma" in a child with cystic fibrosis. *Pediatric Neurosurgery* 46:744-747 2000.
23. Liachenko S, Tang P, **Hamilton RL**, Xu Y: A reproducible model of circulatory arrest and remote resuscitation in rats for NMR investigation. *Stroke* 29:1229-1238, 1998
24. Meltzer CC, Liu AY, Perrone AM, **Hamilton RL** Meningioangiomas MR imaging with histopathologic correlation. *AJR* 170:804-5, 1998
25. Clark RSB, Kochanek PM, Chen M, Watkins SC, Marion DW, Chen J, **Hamilton RL**, Loeffert JE, Graham SH. Increases in Bcl-2 and cleavage of caspase-1 and caspase-3 in human brain after head injury. *FASEB J*, 13:813-821, 1999
26. Soontornniyomkij V, Wang G, Pittman CA, **Hamilton RL**, Wiley CA, Achim CL Absence of brain-derived neurotrophic factor and trkB receptor immunoreactivity in glia of Alzheimer's disease. *Acta Neuropathologica* 98:345-8, 1999.
27. Wang G, Achim CL, **Hamilton RL**, Wiley CA, Soontornniyomkij V Tyramide signal amplification methods in multiple label immunofluorescence confocal microscopy. *Methods* 18(4):459-464, 1999
28. Firlik KS, Adelson PD, **Hamilton RL**: Coexistence of a ganglioglioma and Rasmussen's encephalitis: successful treatment in a four-year-old boy. *Pediatr Neurosurg* 30:278-282, 1999
29. Ikonomic MD, Mizukami K, Warde D, Sheffield R, **Hamilton R**, Wenthold RJ, Armstrong DM Distribution of glutamate receptor subunit NMDAR1 in the hippocampus of normal elderly and patients with Alzheimer's disease. *Exp Neurol* 160(1):194-204, 1999.
30. Dallasta, LM, Wang G, Bodnar RJ, Draviam R, Wiley CA, Achim CA, **Hamilton RL**: Differential expression of intercellular adhesion molecules-1 (ICAM-1) and vascular adhesion cell molecule-1 (VCAM-1) in chronic murine retroviral encephalitis. *Neuropathol Appl Neurobiol* 26:332-341, 2000.
31. Luabeya MK, Dallasta LM, Achim CL, Pauza CD, **Hamilton RL**: Blood-brain Barrier Disruption in Simian Immunodeficiency Virus Encephalitis. *Neuropathol Appl Neurobiol* 26:454-462, 2000.
32. **Hamilton RL**. Lewy Bodies in Alzheimer's Disease: A Neuropathological Review of 145 Cases Using α -synuclein Immunohistochemistry. *Brain Pathol* 10: 378-384, 2000.
33. Sweet, RA, **Hamilton RL**, Healy MT, Wisniewski SR, Hentleff R, Pollack BG, Lewis DA, DeKosky ST. Alterations of Striatal Dopamine Receptor Binding in Alzheimer's Disease Are Associated with Lewy Body Pathology and With Antemortem Psychosis. *Arch Neurol* 58:466-472, 2001.
34. Styren S, **Hamilton RL**, Styren GC, Klunk WE X-34: a novel and intensely fluorescent stain for Alzheimer's disease pathology. *J Histochem Cytochem* 48:1223-1232, 2000.
35. Lopez OL, **Hamilton RL**, Becker JT, Wisniewski S, Kaufer DI, DeKosky ST. Severity of cognitive impairment and the clinical diagnosis of AD with Lewy bodies. *Neurology* 54:1780-1787, 2000
36. Lopez OL, Wisniewski S, **Hamilton RL**, Becker JT, Kaufer DI, DeKosky ST. Predictors of progression in patients with AD and Lewy bodies. *Neurology* 54:1774-1779, 2000.

Ronald L. Hamilton, M.D.

37. Sweet RA, **Hamilton RL**, Lopez OL, Klunk WE, Wisniewski SR, Kaufer DI, Healy MT, Dekosky ST. Psychotic symptoms in Alzheimer's Disease are not associated with more severe neuropathologic features. *Internat Psychogeriatr* 12: 547-558, 2000.
38. Lopez OL, Becker JT, Klunk W, Saxton J, **Hamilton RL**, Kaufer DI, Sweet RA, Meltzer CC, Wisniewski S, Kamboh MI, DeKosky ST. Research evaluation and diagnosis of probable Alzheimer's Disease over the last two decades. I. *Neurology* 55:1854-1862, 2000.
39. Lopez OL, Becker JT, Klunk W, Saxton J, **Hamilton RL**, Kaufer DI, Sweet RA, Meltzer CC, Wisniewski S, Kamboh MI, DeKosky ST. Research evaluation and diagnosis of possible Alzheimer's Disease over the last two decades. II. *Neurology* 55:1863-1869, 2000.
40. Pollack IF, **Hamilton RL**, Fitz C, Kassam A, Snyderman C. Congenital Reactive Myofibroblastic Tumor of the Petrous Bone: Case Report. *Neurosurgery* 48:430-435, 2001.
41. Levy EI, Scarrow A, **Hamilton RC** (sic), Wollman MR, Fitz C, Pollack IF. Medical Management Of Eosinophilic Granuloma of the Cervical Spine. *Pediatr Neurosurg* 31:159-62, 1999.
42. Pettegrew JW, Panchalingam K, **Hamilton RL**, and McClur RJ Brain Membrane Phospholipid Alterations in Alzheimer's Disease. *Neurochem Res* 26:771-782, 2001
43. Levy EI, Harris AE, Omalu BA, **Hamilton RL**, Branstetter BF, Pollack IF. Sudden Death from Fulminant Acute Cerebellitis. *Pediatr Neurosurg* 35:24-28, 2001
44. Lianchenko S, Tang P, **Hamilton RL**, Xu Y. Regional Dependence of Cerebral Reperfusion After Circulatory Arrest in Rats. *J Cerebr Blood Flow Met* 21:1320-1329, 2001 .
45. Pollack IF, Finkelstein SD, Burnham J, Holmes EJ, **Hamilton RL**, Yates AJ, Finlay J, Sposto R, and CCG. Age and TP53 Mutation Frequency in Childhood Malignant Gliomas: Results of a Multi-institutional Cohort. *Cancer Res* 61:7404-7407, 2001
46. Adelson PD, Jenkins LW, **Hamilton RL**, Robichaud P, Tran MP, Kochanek PM. Histopathologic Response of the Immature Rat to Diffuse Traumatic Brain Injury. *J Neurotrauma* 18 :967-976, 2001
47. Pollack IF, Finkelstein SD, Woods J, Burnham J, Holmes EJ, **Hamilton RL**, Yates AJ, Boyett JM, Finlay J, Sposto R, and CCG. TP53 Mutations, Expression of p53 and Prognosis in Children with Malignant Gliomas. *New England Journal of Medicine* 346:420-427, 2002
48. Lopez OL, Becker JT, Kaufer DI, **Hamilton RL**, Sweet RA, Klunk W, DeKosky ST. Research Evaluation and Prospective Diagnosis of Dementia With Lewy Bodies. *Arch Neurol* 59:43-46, 2002.
49. Wang L, Yushmanov VE, Lianchenko SM, Tang P, **Hamilton RL**, Xu Y. Late Reversal of Cerebral Perfusion and Water Diffusion After Transient Focal Ischemia in Rats. *J Cerebr Blood Flow Metab* 22:253-261, 2002.
50. Pollack IF, Biegel JA, Yates AJ, **Hamilton RL**, Finkelstein SD. Risk Assignment in Childhood Brain Tumors: The Emerging Role of Molecular and Biologic Classification. *Current Oncology Reports* 4:114-122, 2002.
51. Pollack IF, **Hamilton RL**, Burnham J, Holmes EJ, Finkelstein SD, Sposto R, Yates AJ, Boyett JM, Finlay JL. The impact of proliferation index on outcome in childhood malignant gliomas: results in a multi-institutional cohort. *Neurosurgery* 50:1238-1245, 2002.

Ronald L. Hamilton, M.D.

52. Sweet RA, Panchalingam K, Pettefrew JW, McClure RJ, **Hamilton RL**, Lopez OL, Kaufer DI, DeKosky ST, Klunk WE. Psychosis in Alzheimer disease: postmortem magnetic resonance spectroscopy evidence of excess neuronal and membrane phospholipid pathology. *Neurobiol Aging* 23:547-53, 2002.
53. Mazzola CA, Albright AL, Sutton LN, Tuite GF, **Hamilton RL**, Pollack IF. Dermoid inclusion cysts and early spinal cord tethering after fetal surgery. *New Engl. J Med* 347:256-9, 2002.
54. Bredel M, Pollack IF, **Hamilton RL**, Birner P, Hainfellner JA, Zentner J. DNA topoisomerase II-alpha predicts progression-free and overall survival in pediatric malignant non-brainstem gliomas. *Int J Cancer* 99:817-20, 2002.
55. Klunk WE, Wang Y, Huang G, Debnath ML, Holt DP, Shao L, **Hamilton RL**, Ikonomic MD, DeKosky ST, Mathis CA. The binding of BTA-1 to post-mortem brain homogenates is dominated by the amyloid component. *J Neurosci* 23:2086-2092, 2003.
56. Castellano-Sanchez, AA, Ohgaki H, Yokoo H, Scheithauer BW, Burger PC, **Hamilton RL**, Finkelstein SD, Brat, DJ. Cerebral granular cell astrocytomas show a high frequency of allelic loss but lack a defining genotype. *Brain Pathology* 13: 62-78, 2003.
57. Gilbertson RJ, Hill DA, Hernan R, Kocak M, Geyer R, Olson J, Gajjar A, Rush L, **Hamilton RL**, Finkelstein SD, Pollack IF. ERBB1 is amplified and overexpressed in high-grade diffusely infiltrative pediatric brain stem glioma. *Clin Cancer Res* 9:3620-3624, 2003.
58. Pollack IF, Finkelstein SD, Burnham J, **Hamilton RL**, Yates AJ, Holmes EJ, Boyett JM, Finlay JL. The association between chromosome 1p loss and outcome in pediatric malignant gliomas: results from the CCG-945 cohort. *Pediatr Neurosurg* 39:114-121, 2003.
59. Carter TL, Rissman RA, Mishizen-Eberz AJ, Wolfe BB, **Hamilton RL**, Gandy S, Armstrong DM. Differential Preservation of AMPA Receptor Subunits in the Hippocampi of Alzheimer's Disease Patients According to Braak Stage *Experimental Neurology* 187:299-309, 2004
60. Finkelstein SD, Mohan D, **Hamilton RL**, Sasatomi E, Swalsky PA, Lieberman FS. Microdissection-based genotyping assists discrimination of reactive gliosis versus glioma. *Am J Clin Pathol* 121:671-678, 2004
61. **Hamilton RL**, Bowser B Alzheimer Disease Pathology in ALS *Acta Neuropathologica* 107:515-522, 2004
62. Mohan D, Couce ME, Wiley CA, **Hamilton RL**, Sasatomi E, Swalsky PA, Lieberman MD, Finkelstein SD. Microdissection based genotyping of human gliomas: diagnostic and prognostic considerations *Modern Pathology* 17:1346-1358, 2004
63. Marshall GA, Kaufer DI, Lopez OL, Rao GR, **Hamilton RL**, DeKosky ST. Right prosubiculum amyloid plaque density correlates with anosognosia in Alzheimer's Disease. *J Neurol Neurosurg Psychiatry* 75:1396-4000, 2004. **PMCID: PMC1738763**
64. Sweet RA, **Hamilton RL**, Butters ME, Mulsant BH, Pollock BG, Lewis DA, DeKosky ST, Reynolds CF. Neuropathologic Correlates of Dementia in Late Life Major Depression *Neuropsychopharmacology* 29:2242-2250, 2004
65. Lee JYK, Finkelstein S, **Hamilton RL**, Rekha P, Pirris S, King Jr, JT, Omalu B. Loss of heterozygosity Analysis of Benign, Atypical and Anaplastic Meningiomas. *Neurosurgery* 55:1163-1173, 2004.

Ronald L. Hamilton, M.D.

66. Beckner ME, Sasatomi E, Swalsky PA, **Hamilton RL**, Pollack, IF, Finkelstein SD. Loss of heterozygosity reveals non-VHL Allelic loss in hemangioblastomas at 22q13. Human Pathology 35:1105-1111, 2004.
67. Tsuang D, Wilson R, Lopez OL, Luedecking-Zimmer EK, Leverenz JB, DeKosky ST, Kamboh MI, **Hamilton RL**. Genetic Association Between APOE*4 Allele and Lewy Bodies in Alzheimer's Disease Neurology, 64:509-513, 2005. **PMCID: PMC1487185**
68. Bredel C, Lassman S, Pollack IF, Knoth R, **Hamilton RL**, Werner M, Bredel M. DNA Topoisomerase II-alpha and Her-2/Neu Gene Dosages in Pediatric Malignant Gliomas. Int J Cancer 26:1188-92, 2005.
69. Witham TF, Okada H, Fellows W, **Hamilton RL**, Flickinger JC, Chambers WH, Pollack IF, Watkins SC, Kondziolka D. The characterization of tumor apoptosis after experimental radiosurgery. Stereotact Funct Neurosurg 83:17-24 2005.
70. McFadden K, **Hamilton RL**, Insalaco SJ, Lavine L, Al-Mateen M, Guoji Wang G, Wiley CA Neuronal intranuclear inclusion disease in a child without polyglutamine inclusions J Neuropathol Exper Neurol 64:545-552, 2005. **PMCID: PMC1402362**
71. Hatano M, Eguchi J, Tatsumi T, Kuwashima N, Dusak JE, Kinch MS, Pollack IF, **Hamilton RL**, Storkus WJ, Okada H. EphA2 as a glioma-associated antigen: a novel target for glioma-vaccines. Neoplasia 7:717-722, 2005. **PMCID: PMC1501889**
72. Jordan S, Ruoyan C, Koprivica V, **Hamilton RL**, Whitehead R, Tottori K, Kikuchi T. In vitro profile of the antidepressant candidate OPC-14523 at rat and human 5-HT_{1A} receptors. Eur J Pharmacol, 517:165-173, 2005.
73. Omalu BI, Minster RL, Kamboh MI, **Hamilton RL**, Wecht CH, DeKosky ST. Chronic Traumatic Encephalopathy (CTE) in a National Football League (NFL) Player Neurosurgery, 57:128-134, 2005.
74. Judkins AR, Burger PC, **Hamilton RL**, Kleinschmidt-DeMasters B, Perry A, Pomeroy SL, Rosenblum MK, Yachnis AT, Zhou H, Rorke LB, Biegel JA. INI1 Protein Expression Distinguishes Atypical Teratoid/Rhabdoid Tumor from Choroid Plexus Carcinoma. J Neuropathol Exp Neurol 64:391-397, 2005.
75. Desai PP, Ikonomic I, Abrahamson EE, **Hamilton RL**, Isanski BA, Hope CE, Klunk WE, Dekosky ST, Kamboh MI. Apolipoprotein D is a component of compact but not diffuse amyloid-beta plaques in Alzheimer's Disease temporal cortex. Neurobiol Dis May 22, 2005 (epub)
76. Carson-Walter EB, Hampton J, Geynisman D, Pillai PK, Sathanoori R, Madden SL, **Hamilton RL**, Walter KA. Plasmalemmal Vesicle associated protein-1 (PV-1) is a novel and critical marker of brain tumor angiogenesis. Clin Cancer Res 11:7643-7650, 2005.
77. Lopez OL, Becker JT, Sweet RA, Martin-Sanchez FJ, **Hamilton RL** Lewy bodies in the Amygdala increase risk for major depression in subjects with Alzheimer disease. Neurology 67:660-665, 2006.
78. Pollack IF, **Hamilton RL**, Sobol R, Burnham J, Yates AJ, Holmes EJ, Zhou T, Finlay J (for Children Oncology Group). O6-methylguanine-DNA methyltransferase strongly Correlates with Outcome in Childhood Malignant Gliomas: Results from the CCG-945 Cohort J Clin Oncol. Jul 20;24(21):3431-7, 2006.

Ronald L. Hamilton, M.D.

79. Mandal PK, Pettegrew JW, Masliah E, **Hamilton RL**, Mandal R. Interaction between A β Peptide and α Synuclein: Molecular Mechanisms in Overlapping Pathology of Alzheimer's and Parkinson's in Dementia with Lewy Body disease. *Neurochemical Research*, 2006 31, 1153-1162, 2006.
80. Omalu B, DeKosky ST, **Hamilton RL**, Minster RL, Kamboh MI, Shakir AM, Wecht Chronic Traumatic Encephalopathy in a National Football League Player: part II. *Neurosurgery* 59:1086-92, 2006
81. Ramsey CP, Glass CA, Koike MA, Montgomery MB, Ritson GP, Chia L, **Hamilton RL**, Chu CT, Jordan-Sciutto KL. Expression of Nrf2 in neurodegenerative diseases. *J Neuropathol Exp Neurol* 66:75-85, 2007. **PMCID: PMC2253896**
82. Boada FE, Tanase C, Davis D, Walter K, Torres-Trejo A, Couce M, **Hamilton R**, Kondziolka D, Bartinski W, Lieberman F. Non-invasive assessment of tumor proliferation using triple quantum filtered 23/Na MRI: technical challenges and solutions. *Conf Proc IEEE Eng Med Biol Sci Soc*. 2004; 7:5238-41
83. Pollack IF, **Hamilton RL**, James CD, Finkelstein SD, Burnham J, Yates AJ, Holmes EJ, Zhou T, Finlay J (for Children Oncology Group). Rarity of *PTEN* Deletions and *EGFR* Amplification in Malignant Gliomas of Childhood: Results from the Children's Cancer Group-945 Cohort J *Neurosurg* 105(5 Suppl):418-424, 2006.
84. Guzman A, Wood WL, Alpert E, Prasad MD, Miller RG, Rothstein JD, Bowser R, **Hamilton R**, Wood TD, Cleveland DW, Lingappa VR, Liu J. Common molecular signature in SOD1 for both sporadic and familial amyotrophic lateral sclerosis. *Proc Nat Acad Sci* 104:12524-12529, 2007. **PMCID: PMC2408940**
85. Beckner ME, Jane EP, Jankowitz B, Agostino NR, Walter KA, **Hamilton RL**, Pollack IF. Tumor cells from ultrasonic aspirations of glioblastomas migrate and from spheres with radial outgrowth. *Cancer Letters* 255:135-44, 2007. PMID 17543444, **PMCID: PMC2000342**
86. McIntyre JA, Chapman J, Shavit E, **Hamilton RL**, and DeKosky ST. Redox-Reactive Autoantibodies in Alzheimer's Patients' Cerebrospinal Fluids: Preliminary Studies. *Autoimmunity*, 40:390-396, 2007. PMID 17612901
87. Nakashima-Yasuda, Uryu, K, Robinson J, Xie S, Hurtig H, Duda J, Arnold S, Siderowf A, Grossman M, Leverenz J, Woltjer R, Lopez OL, **Hamilton R**, Tsuang DW, Galaska D, Masliah M, Kaye J, Clark C, Montine TJ, Lee VMY, Trojanowski J. Co-morbidity of TDP-43 Proteinopathy in Lewy Body Related Diseases. *Acta Neuropathol* 114:221-9, 2007. PMID 17653732
88. McIntyre JA, **Hamilton RL**, DeKosky ST. Redox-reactive autoantibodies in cerebrospinal fluids. *Ann NY Acad Sci* 1109:296-302, 2007. PMID 17785318
89. Okada H, Lieberman FS, Walter KA, Lunsford LD, Kondziolka DS, Bejjani GK, **Hamilton RL**, Torres-Trejo A, Kalinski P, Cai Q, Mabold JL, Edington HD, Butterfield LH, Whiteside TL, Potter DM, Schold SC Jr., Pollack IF. Autologous glioma cell vaccine admixed with interleukin-4 gene transfected fibroblasts in the treatment of patients with malignant gliomas. *J Transl Med* 5:67, 2007. PMID 18093335. **PMCID: PMC2254376**
90. Beach TG, White CL, **Hamilton, RL**, Duda JE, Iwatsubo T, Dickson DW, Leverenz JB, Roncaroli F, Buttni M, Hladik CL, Sue LI, Noorigian JV, Adler CH. Evaluation of alpha-synuclein immunohistochemical methods used by invited experts. *Acta Neuropathol* 116:277-88, 2008. PMID 18626651. **PMCID: PMC2708176**
91. Ikonovic MD, Klunk WE, Abrahamson EE, Mathis CA, Price JC, Tsopelas ND, Lopresti BJ, Ziolkowski S, Bi W, Paljug WR, Debnath ML, Hope CE, Isanski BA, **Hamilton RL**, DeKosky ST. Post-

Ronald L. Hamilton, M.D.

mortem correlates of in vivo PiB-PET amyloid imaging in a typical case of Alzheimers disease. Brain 131(Pt 6):1630-45, 2008. PMID 18339640. **PMCID: PMC2408940**

92. Leverenz JB, **Hamilton R**, Tsuang DW, Schantz A, Vavrek D, Larson EB, Kukall WA, Lopez O, Galasko D, Masliah E, Woltjer R, Clark C, Trojanowski JQ, Montine TJ. Empiric refinement of the pathologic assessment of Lewy-related pathology in the dementia patient. Brain Pathol 18:220-224, 2008. PMID 18241249. **PMCID: PMC2689097 NIHMS29359**
93. Raja AI, Yeane GA, Jakacki RI, **Hamilton RL**, Pollack IF Extraventricular neurocytoma in neurofibromatosis Type I: Case report. J Neurosurg Pediatrics 2:63-67, 2008. PMID 18590398
94. Okada H, Low KL, Kohanbash G, McDonald HA, **Hamilton RL**, Pollack IF. Expression of glioma-associated antigens in pediatric brain stem and non-brain stem gliomas. J Neurooncol 88:245-50, 2008. PMID 18324354. **PMCID: PMC2561297 NIHMS70086**
95. Venneti S, Lopresti BJ, Wang G, **Hamilton RL**, Mathis CA, Klunk WE, Apte UM, Wiley CA. PK11195 labels activated microglia in Alzheimer's disease and in vivo in a mouse model using PET. Neurobiol Aging 2009, 30:1217-26. PMID 18178291
96. Mullett SJ, **Hamilton RL**, Hinkle DA. DJ-1 immunoreactivity in human brain astrocytes is dependent on infarct presence and infarct age. Neurology 2009, 29:125-31. PMID 18647263
97. Park DM, Yeane GA, **Hamilton RL**, Mabold J, Urban N, Appleman L, Flickinger J, Lieberman F, Mintz A. Identifying Muir-Torre syndrome in a patient with glioblastoma multiforme. Neuro Oncol, 2009 11:452-5. PMID 19028998.)
98. Horbinski C, Bartynski WS, Carson-Walter E, **Hamilton RL**, Tan HP, Cheng S. Reversible encephalopathy after cardiac transplantation: Histologic evidence of endothelial activation, T-cell specific trafficking, and vascular endothelial growth factor expression. Am J Neuroradiol 2008 30:588-90. PMID 18854444.
99. Northcott P, Nakahara Y, Peacock J, Ellison D, Croul S, Feuk L, Ra YS, Kongham P, Zilerberg K, Mack S, McLeod J, Scherer S, Rao S, Grajkowska W, Gillespie Y, Lach B, Grundy R, Pollack IF, **Hamilton RL**, Van Meter T, Carlotti C, Boop R, Bigner D, Gilbertson R, Rutka J, Taylor MD. Multiple recurrent genetic events converge on control of histone lysine methylation in medulloblastoma. Nat Genet 2009 41:465-72. PMID 19270706.
100. Ueda R, Kohanbash G, Sasaki K, Fujita M, Zhu X, Kasthuber ER, McDonald HA, Potter DM, **Hamilton RL**, Lotze MT, Khan SA, Sobol RW, Okada H. Dicer-regulated microRNAs 222 and 339 promote resistance of cancer cells to cytotoxic T-lymphocytes by down-regulation of ICAM-1. Proc Natl Acad Sci U S A. 2009 Jun 30;106(26):10746-51. PMID: 19520829
101. Maki RA, Tyurin VA, Lyon RC, **Hamilton RL**, DeKosky ST, Kagan VE, Reynolds WF. Aberrant expression of myeloperoxidase in astrocytes promotes phospholipid oxidation and memory deficits in a mouse model of Alzheimer disease. J Biol Chem. 2009 Jan 30;284(5):3158-69. PMID: 19059911.
102. Horbinski C, **Hamilton RL**, Lovell C, Burnham J, Pollack IF. Impact of morphology, MIB-1, p53, and MGMT on Outcome in Pilocytic Astrocytomas. Brain Pathology 2010; 20:581-8 e-pub Sept 21, 2009
103. Armstrong RA, Ellis W, **Hamilton RL**, MacKenzie IR, Hedreen J, Gearing M, Montine T, Vonsattel JP, Head E, Lieberman AP, Cairns NJ. Neuropathological heterogeneity in frontotemporal lobar degeneration with TDP-43 proteinopathy: a quantitative study of 94 cases using principle components analysis. J Neural Transm 2010, 117:227-239.

Ronald L. Hamilton, M.D.

104. Horbinski C, **Hamilton RL**, Nikiforov Y, Pollack IF. Association of molecular alterations, including BRAF, with biology and outcome in pilocytic astrocytomas. *Acta Neuropathol* 2010 Jan 1, e-pub.
105. Van Deerlin VM, Sleiman PM, Martinez-Lage M, Chen-Plotkin A, Wang LS, Graff-Radford NR, Dickson DW, Rademakers R, Boeve BF, Grossman M, Arnold SE, Mann DM, Pickering-Brown SM, Seelaar H, Heutink P, van Swieten JC, Murrell JR, Ghetti B, Spina S, Grafman J, Hodges J, Spillantini MG, Gilman S, Lieberman AP, Kaye JA, Woltjer RL, Bigio EH, Mesulam M, Al-Sarraj S, Troakes C, Rosenberg RN, White CL 3rd, Ferrer I, Lladó A, Neumann M, Kretschmar HA, Huette CM, Welsh-Bohmer KA, Miller BL, Alzualde A, de Munain AL, McKee AC, Gearing M, Levey AI, Lah JJ, Hardy J, Rohrer JD, Lashley T, Mackenzie IR, Feldman HH, **Hamilton RL**, Dekosky ST, van der Zee J, Kumar-Singh S, Van Broeckhoven C, Mayeux R, Vonsattel JP, Troncoso JC, Kril JJ, Kwok JB, Halliday GM, Bird TD, Ince PG, Shaw PJ, Cairns NJ, Morris JC, McLean CA, DeCarli C, Ellis WG, Freeman SH, Frosch MP, Growdon JH, Perl DP, Sano M, Bennett DA, Schneider JA, Beach TG, Reiman EM, Woodruff BK, Cummings J, Vinters HV, Miller CA, Chui HC, Alafuzoff I, Hartikainen P, Seilhean D, Galasko D, Masliah E, Cotman CW, Tuñón MT, Martínez MC, Munoz DG, Carroll SL, Marson D, Riederer PF, Bogdanovic N, Schellenberg GD, Hakonarson H, Trojanowski JQ, Lee VM. Common variants at 7p21 are associated with frontotemporal lobar degeneration with TDP-43 inclusions. *Nat Genet* 2010 42:234-239.
106. Omalu BI, **Hamilton RL**, Kamboh MI, DeKosky ST, Bailes J. Chronic traumatic encephalopathy in a National Football League Player: Case report and emerging medicolegal practice questions. *J Forensic Nurs*, 2010, 6: 40-46.
107. Caltagarone J, **Hamilton RL**, Murdoch G, Jing Z, DeFranco DB, Bowser R. Paxillin and hydrogen peroxide-induced clone 5 expression and distribution in control and Alzheimer disease hippocampi. *J Neuropathol Exp Neurol*. 2010; 69:356-71.
108. Pollack IF, **Hamilton RL**, Sobol RW, Nikiforova MN, Lyons-Weiler MA, Laframboise WA, Burger PC, Brat DJ, Rosenblum MK, Holmes EJ, Zhou T, Jakacki RI; for the Children's Oncology Group. IDH1 mutations are common in malignant gliomas arising in adolescents: a report from the Children's Oncology Group. *Childs Nerv Syst*. 2010; 27:87-94
109. Jun G, Naj AC, Beecham GW, Wang LS, Buross J, Gallins PJ, Buxbaum JD, Ertekin-Taner N, Fallon MD, Friedland R, Inzelberg R, Kramer P, Rogaeva E, St George-Hyslop P, Arnold SE, Baldwin CT, Barber R, Beach T, Bigio EH, Bird TD, Boxer A, Burke JR, Cairns N, Carroll SL, Chui HC, Clark DG, Cotman CW, Cummings JL, Decarli C, Diaz-Arrastia R, Dick M, Dickson DW, Ellis WG, Fallon KB, Farlow MR, Ferris S, Frosch MP, Galasko DR, Gearing M, Geschwind DH, Ghetti B, Gilman S, Giordani B, Glass J, Graff-Radford NR, Green RC, Growdon JH, **Hamilton RL**, Harrell LE, Head E, Honig LS, Huette CM, Hyman BT, Jicha GA, Jin LW, Johnson N, Karlawish J, Karydas A, Kaye JA, Kim R, Koo EH, Kowall NW, Lah JJ, Levey AI, Lieberman A, Lopez OL, Mack WJ, Markesbery W, Marson DC, Martiniuk F, Masliah E, McKee AC, Mesulam M, Miller JW, Miller BL, Miller CA, Parisi JE, Perl DP, Peskind E, Petersen RC, Poon W, Quinn JF, Raskind M, Reisberg B, Ringman JM, Roberson ED, Rosenberg RN, Sano M, Schneider JA, Schneider LS, Seeley W, Shelanski ML, Smith CD, Spina S, Stern RA, Tanzi RE, Trojanowski JQ, Troncoso JC, Van Deerlin VM, Vinters HV, Vonsattel JP, Weintraub S, Welsh-Bohmer KA, Woltjer RL, Younkin SG, Cantwell LB, Dombroski BA, Saykin AJ, Reiman EM, Bennett DA, Morris JC, Lunetta KL, Martin ER, Montine TJ, Goate AM, Blacker D, Tsuang DW, Beekly D, Cupples LA, Hakonarson H, Kukull W, Feroz TM, Haines J, Mayeux R, Farrer LA, Pericak-Vance MA, Schellenberg GD; Alzheimer's Disease Genetics Consortium, Arnold SE, Baldwin CT, Barber R, Beach T, Bigio EH, Bird TD, Boxer A, Burke JR, Cairns N, Carroll SL, Chui HC, Clark DG, Cotman CW, Cummings JL, Decarli C, Diaz-Arrastia R, Dick M, Dickson DW, Ellis WG, Fallon KB, Farlow MR, Ferris S, Frosch MP, Galasko DR, Gearing M, Geschwind DH, Ghetti B, Gilman S, Giordani B, Glass J, Graff-Radford NR, Green RC, Growdon JH, Hamilton RL, Harrell LE, Head E, Honig LS, Huette CM, Hyman BT, Jicha GA, Jin LW, Johnson N, Karlawish J, Karydas A, Kaye JA, Kim R, Koo EH, Kowall NW, Lah JJ, Levey AI, Lieberman A, Lopez OL, Mack WJ, Markesbery W, Marson DC, Martiniuk F, Masliah E, McKee AC, Mesulam M, Miller JW, Miller BL, Miller CA, Parisi JE, Perl DP, Peskind E, Petersen RC, Poon W, Quinn JF, Raskind M, Reisberg B, Ringman JM, Roberson ED, Rosenberg RN, Sano M, Schneider JA, Schneider LS, Seeley W, Shelanski ML, Smith CD, Spina S, Stern RA, Tanzi RE, Trojanowski JQ, Troncoso JC, Van Deerlin VM, Vinters HV, Vonsattel JP, Weintraub S, Welsh-Bohmer KA, Woltjer RL, Younkin SG. Meta-analysis confirms CR1, CLU and PICALM as Alzheimer Disease Risk Loci and reveals interactions with APOE Genotypes. *Arch Neurol*, 2010, Sep 3 (epub ahead of print)
110. Pollack IF, **Hamilton RL**, Burger PC, Brat DJ, Rosenblum MK, Murdoch GH, Nikiforova MN, Holmes EJ, Zhou T, Cohen KJ, Jakacki RI; Children's Oncology Group. Akt activation is a common event in pediatric malignant gliomas and a potential adverse prognostic marker: a report from the Children's Oncology Group. *J Neurooncol*. 2010 Sep;99(2):155-63. Epub 2010 Jul 4

Ronald L. Hamilton, M.D.

111. Pollack IF, **Hamilton RL**, Sobol RW, Nikiforova MN, Nikiforov YE, Lyons-Weiler MA, Laframboise WA, Burger PC, Brat DJ, Rosenblum MK, Gilles FH, Yates AJ, Zhou T, Cohen KJ, Finlay JL, Jakacki RI; for the Children's Oncology Group. Mismatch repair deficiency is an uncommon mechanism of alkylator resistance in pediatric malignant gliomas: a report from the Children's Oncology Group. *Pediatr Blood Cancer* 2010 Jun 29 epub ahead of print
112. Bonne-Barkay D, Wang G, Starkey A, **Hamilton RL**, Wiley CA. In vivo CHI3L1 (YKL-40) expression in astrocytes in acute and chronic neurological diseases. *J Neuroinflammation* 2010 Jun 11:7-34.
113. Hinkle DA, Mullett SJ, Gabris BE, **Hamilton RL**. DJ-1 expression in glioblastomas shows positive correlation with p53 expression and negative correlation with epidermal growth factor receptor amplification. *Neuropathology* 2010 May 19 (epub ahead of print)xx
114. Okada H, Kalinski P, Ueda R, Hoji A, Kohanbash G, Donegan TE, Mintz AH, Engh JA, Bartlett DL, Brown CK, Zeh H, Holtman MP, Reinhart TA, Whiteside TL, Butterfield LH, **Hamilton RL**, Potter DM, Pollack IF, Salazar AM, Lieberman FS. Induction of CD8+ T-cell responses against novel glioma-associated antigen peptides and clinical activity by vaccinations with {alpha}-type 1 polarized dendritic cells and polyinosinic-polycytidylic acid stabilized by lysine and carboxymethylcellulose In patients with recurrent malignant glioma. *J Clin Oncol*. 2011;29:330-6. PMID: 21149657
115. Kofler J, Bartynski WS, Reynolds TQ, Lieberman FS, Murdoch GH, **Hamilton RL**. Posterior reversible encephalopathy syndrome (PRES) with immune system activation, VEGF up-regulation, and cerebral amyloid angiopathy. *J. Comput Assist Tomogr*. 2011; 35:39-42. PMID: 21150450
116. Bonfield CM, Amin D, **Hamilton RL**, Gerszten PC. Extramedullary ependymoma near the conus medullaris with lumbar nerve root attachment: case report. *Neurosurgery*. 2011 Mar;68:E831-4. PMID:21311277
117. Fujita M, Kohanbash G, Fellows-Mayle W, **Hamilton RL**, Komohara Y, Decker SA, Ohlfest JR, Okada H. COX-2 blockade suppresses gliomagenesis by inhibiting myeloid-derived suppressor cells. *Cancer Res*. 2011 Apr 1;71:2664-74. Epub 2011 Feb 15. PMID: 21324923
118. Cohen KJ, Pollack IF, Zhou T, Buxton A, Holmes EF, Burger PC, Brat DJ, Rosenblum MK, **Hamilton RL**, Lavey RS, Heideman RL. Temozolomide in the treatment of high-grade gliomas in children: a report from the Children's Oncology Group. *Neuro Oncol*. 2011 Mar;13:317-23. PMID: 21339192
119. Omalu B, Bailes J, **Hamilton RL**, Kamboh MI, Hammers J, Case M, Fitzsimmons R. Emerging histomorphologic phenotypes of chronic traumatic encephalopathy in American athletes. *Neurosurgery*. 2011 Jul;69:173-83; discussion 183. PMID: 21358359
120. Tang JB, Svilar D, Trivedi RN, Wang XH, Goellner EM, Moore B, **Hamilton RL**, Banze LA, Brown AR, Sobol RW. N-methylpurine DNA glycosylase and DNA polymerase beta modulate BER inhibitor potentiation of glioma cell to temozolomide. *Neurosurgery Oncol*. 2011;13:471-86. PMID: 21377995
121. Liu KW, Feng H, Bachoo R, Kazlauskas A, Smith EM, Symes K, **Hamilton RL**, Nagane M, Nishikawa R, Hu B, Cheng SY. SHP-2/PTPN 11 mediates gliomagenesis driven by PDGFRA and INK4A/ARF aberrations in mice and humans. *J. Clin Invest*. 2011 Mar;121:905-17. PMID: 21393858
122. Naj AC, Jun G, Beecham GW, Wang LS, Vardarajan BN, Buros J, Gallins PJ, Buxbaum JD, Jarvidk GP, Crane PK, Larson EB, Bird TB, Boeve BF, Graff-Radford NR, De Jager PL, Evans D, Schneider JA, Carrasquillo MM, Ertekin-Taner N, Younkin SG, Cruchaga C, Kauwe JS, Nowotny P, Kramer P, Hardy J, Huentelman MJ, Myers AJ, Barmada MM, Demirci FY, Baldwin CT, Green RC, Rogaeva E, St. George-Hyslop P, Arnold SE, Barber R, Beach T, Bigio EH, Bowen JD, Boxer A, Burke JR, Cairns NJ, Carlson CS, Carney RM, Carroll SL, Chui HC, Clark DG, Corneveaux J, Cotman CW, Cummings JL, Decarli C, DeKosy ST, Diaz-Arrastia R, Dick M, Dickson DW, Ellis WG, Faber KM, Fallon KB, Farlow MR, Ferris S, Frosch MP, Galasko Dr, Ganguli M, Gearing M, Geschwind DH, Ghetti B, Gilbert JR, Gilman S, Giordani B, Glass JD, Growdon JH, **Hamilton RL**, Koo EH, Kowall NW, Lah JJ, Levey AI, Lieberman AP, Lopez OL, Mack WJ, Marson DC, Martiniuk F, Mash DC, Masliah E, McCormick WC, McCurry SM, McDavid AN, McKee AC, Mesulam M, Miller BL, Miller JW, Parisi JE, Perl DP, Peskind E, Petersen RC, Poon W, Quinn JF, Rajbhandary RA, Raskind M, Reisberg B, Ringman JM, Roberson ED, Rosenberg RN, Sano M, Schneider LS, Seeley W, Shelanski ML, Slifer MA, Smith CD, Sonnen JA, Spina S, Stern RA, Tanzi RE, Trojanowski JQ, Troncoso JC, Van Deerlin VM, Vinters HV, Vonsattel JP, Weintraub S, Welsh-Bohmer KA, Williamson

Ronald L. Hamilton, M.D.

- J, Woltjer RL, Cantwell LB, Dombroski BA, Beekly D, Lunetta KL, Martin ER, Kamboh MI, Saykin AJ, Reiman EM, Bennett DA, Morris JC, Montine TJ, Goate AM, Jucker D, Tsuang DW, Hakonarson H, Kukull WA, Foroud TM, Haines JL, Mayeux R, Pericak-Vance MA, Farrer LA, Schellenberg GD. Common variants at MS4A4/MS4A6E, CD2AP, CD33 and EPHA1 are associated with late Onset Alzheimer's Disease. *Nat Genet.* 2011 May;43:436-41. Epub 2011 Apr 3. PMID: 21460841
123. Chen-Plotkin AS, Martinez-Lage M, Sleiman PM, Hu W, Greene R, Wood EM, Bing S, Grossman M, Schellenberg GD, Hatanpaa KJ, Weiner MF, White CL 3rd, Brooks WS, Halliday GM, Kril JJ, Gearing M, Beach TG, Graff-Radford NR, Dickson DW, Rademakers R, Boeve BF, Pickering-Brown SM, Snowden J, van Swieten JC, Heutink P, Seelaar H, Murrell JR, Ghetti B, Spina S, Grafman J, Kaye JA, Woltjer RL, Mesulam M, Bigio E, Lladó A, Miller BL, Alzualde A, Moreno F, Rohrer JD, Mackenzie IR, Feldman HH, **Hamilton RL**, Cruts M, Engelborghs S, De Deyn PP, Van Broeckhoven C, Bird TD, Cairns NJ, Goate A, Frosch MP, Riederer PF, Bogdanovic N, Lee VM, Trojanowski JQ, Van Deerlin VM. Genetic and clinical features of progranulin-associated frontotemporal lobar degeneration. *Arch Neurol.* 2011 Apr;68:488-97. PMID: 21482928
 124. Nikiforova MN, **Hamilton RL**. Molecular diagnostics of gliomas. *Arch Pathol Lab Med.* 2011 May;135:558-68. Review. PMID: 21526954
 125. Monaco EA 3rd, Armah HB, Nikiforova MN, **Hamilton RL**, Engh JA. Grade II Oligodendroglioma localized to the corpus callosum. *Brain Tumor Pathol.* 2011 Oct;28:305-9. Epub 2011 Jul 22. PMID: 21833577
 126. Horbinski C, Hobbs J, Cieply K, Dacic S, **Hamilton RL**. EGFR expression stratifies oligodendroglioma behavior. *Am J Pathol.* 2011 Oct; 179:1638-44. Epub 2011 Aug 11. PMID: 21839716
 127. Omalu B, Hammors, JL, Bailes J, **Hamilton RL**. Kamboh MI, Webster G, Fitzsimmons RP. Chronic traumatic Encephalopathy in an Iraqi war veteran with posttraumatic stress disorder who committed suicide. *Neurosurg Focus.* 2011 Nov; :E3. PMID: 22044102
 128. Liu Y, Komohara Y, Domenick N, Ohno M, Ikeura M, **Hamilton RL**, Horbinski C, Wang X, Ferrone S, Okada H. Expression of antigen processing molecules in brain metastasis of breast cancer. *Cancer Immunol Immunother.* 2011 Nov 8. (Epub ahead of print) PMID:22065046
 129. Feng H, Hu B, Liu KW, Li Y, Lu X, Cheng T, Yiin JJ, Lu S, Keezer S, Fenton T, Furnari FB, **Hamilton RL**, Vuori K, Sarkaria JN, Nagane M, Nishikawa R, Cavenee WK, Cheng SY. Activation of Rac 1 by src-dependent phosphorylation of Dock180(Y1811) mediates PDGFR α -stimulated glioma tumorigenesis in mice and humans. *J Clin Invest.* 2011 Dec; 121:4670-84. doi: 10.1172/JCI58559. Epub 2011 Nov 14. PMID: 22080864
 130. Horbinski C, Nikiforova MN, Hobbs J, Bortoluzzi S, Cieply K, Dacic S, **Hamilton RL**. The importance of 10q status in an outcomes-based comparison between 1p/19q fluorescence in situ hybridization and polymerase chain reaction-based microsatellite loss of heterozygosity analysis of oligodendrogliomas. *J. Neuropathol Exp Neurol.* 2012 Jan;71:73-82. PMID: 22157622
 131. Ikonomic MD, Abrahamson EE, Price JC, **Hamilton RL**, Mathis CA, Paljug WR, Cohen AD, Mizukami K, DeKosky ST, Lopez OL, Klunk WE. Early AD pathology in a {C-11} PiB-negative case: a PiB-amyloid imaging, biochemical, and Immunohistochemical study. *Acta Neuropathol.* 2012 Mar;123:433-47. Epub 2012 Jan 24. PMID: 22271153
 132. Feng H, Hu B, Jarzynka MJ, Li Y, Keezer S, Johns TG, Tang CK, **Hamilton RL**, Vuori K, Nishikawa R, Sarkaria JN, Fenton T, Cheng T, Furnari FB, Cavenee WK, Cheng SY. Phosphorylation of Dock180 at tyrosine residue Y722 by Src family kinases mediates EGRF-driven glioblastoma tumorigenesis. *Proc Natl Acad Sci U S A.* 2012 Feb 21;109:3018-23. Epub 2012 Feb 7. PMID: 22323579
 133. Wu J, Lou H, Alerte TN, Stachowski EK, Chen J, Singleton AB, **Hamilton RL**, Perez RG. Neuroscience. 2012 Jan 25. {Epub ahead a print} PMID: 22326202
 134. Murray PS, Kirkwood CM, Gray MC, Ikonomic MD, Paljug WR, Abrahamson EE, Hentleff RA, **Hamilton RL**, Kofler JK, Klunk WE, Lopez OL, Penzes P, Sweet RA. β -Amyloid 42/40 ratio and kalirin expression in Alzheimer disease with psychosis. *Neurobiol Aging.* 2012 Mar 17. [Epub ahead of print] PMID:22429885

Ronald L. Hamilton, M.D.

135. Choi SH, Olabarrieta M, Lopez OL, Maruca V, DeKosky ST, **Hamilton RL**, Becker JT. Gray Matter Atrophy Associated with Extrapyrarnidal Signs in the Lewy Body Variant of Alzheimer's Disease. *J Alzheimers Dis.* 2012 Aug 9. [Epub ahead of print] PMID:22886020
136. Armstrong RA, **Hamilton RL**, Mackenzie IR, Hedreen J, Cairns NJ. Laminar Distribution of the Pathological Changes in Sporadic Frontotemporal Lobar Degeneration with TDP-43 Proteinopathy: A Quantitative Study Using Polynomial Curve Fitting. *Neuropathol Appl Neurobiol.* 2012 Jul 16. [Epub ahead of print] PMID:22804696
137. Atkinson DM, **Hamilton RL** A 52-year-old male with visual changes. *Brain Pathol.* 2012 Jul;22(4):575-8. PMID:22697384
138. Zou F, Chai HS, Younkin CS, Allen M, Crook J, Pankratz VS, Carrasquillo MM, Rowley CN, Nair AA, Middha S, Maharjan S, Nguyen T, Ma L, Malphrus KG, Palusak R, Lincoln S, Bisceglia G, Georgescu C, Kouri N, Kolbert CP, Jen J, Haines JL, Mayeux R, Pericak-Vance MA, Farrer LA, Schellenberg GD; Alzheimer's Disease Genetics Consortium, Petersen RC, Graff-Radford NR, Dickson DW, **Hamilton RL**, Younkin SG, Ertekin-Taner N. Brain expression genome-wide association study (eGWAS) identifies human disease-associated variants. *PLoS Genet.* 2012;8(6): e1002707. Epub 2012 Jun 7 PMID:22685416
139. Horbinski C, Nikiforova MN, Hagenkord JM, **Hamilton RL**, Pollack IF. Interplay among BRAF, p16, p53, and MIB1 in pediatric low-grade gliomas. *Neuro Oncol.* 2012 Jun;14(6):777-89 (1012) PMID:22492957
140. Hobbs J, Nikiforova MN, Fardo DW, Bortoluzzi S, Cieply K, **Hamilton RL**, Horbinski C. Paradoxical relationship between the degree of EGFR amplification and outcome in glioblastomas. *Am J Surg Pathol.* 2012 Aug;36(8):1186-93. PMID:22472960
141. Armstrong, R. A., **R. L. Hamilton**, I. R. Mackenzie, J. Hedreen and N. J. Cairns. "Laminar Distribution of the Pathological Changes in Sporadic Frontotemporal Lobar Degeneration with Transactive Response (Tar) DNA-Binding Protein of 43 Kda (Tdp-43) Proteinopathy: A Quantitative Study Using Polynomial Curve Fitting." *Neuropathol Appl Neurobiol* 39, no. 4 (2013): 335-47.
142. Clark, K. H., J. L. Villano, M. N. Nikiforova, **R. L. Hamilton** and C. Horbinski. "1p/19q Testing Has No Significance in the Workup of Glioblastomas." *Neuropathol Appl Neurobiol*, (2013).
143. Gheorghe, G., O. Radu, S. Milanovich, **R. L. Hamilton**, R. Jaffe, J. F. Southern and J. A. Ozolek. "Pathology of Central Nervous System Posttransplant Lymphoproliferative Disorders: Lessons from Pediatric Autopsies." *Pediatr Dev Pathol* 16, no. 2 (2013): 67-73.
1444. Holton, P., M. Ryten, M. Nalls, D. Trabzuni, M. E. Weale, D. Hernandez, H. Crehan, J. R. Gibbs, R. Mayeux, J. L. Haines, L. A. Farrer, M. A. Pericak-Vance, G. D. Schellenberg, M. Ramirez-Restrepo, A. Engel, A. J. Myers, J. J. Corneveaux, M. J. Huentelman, A. Dillman, M. R. Cookson, E. M. Reiman, A. Singleton, J. Hardy and R. Guerreiro. "Initial Assessment of the Pathogenic Mechanisms of the Recently Identified Alzheimer Risk Loci." *Ann Hum Genet* 77, no. 2 (2013): 85-105.
145. Miyashita, A., A. Koike, G. Jun, L. S. Wang, S. Takahashi, E. Matsubara, T. Kawarabayashi, M. Shoji, N. Tomita, H. Arai, T. Asada, Y. Harigaya, M. Ikeda, M. Amari, H. Hanyu, S. Higuchi, T. Ikeuchi, M. Nishizawa, M. Suga, Y. Kawase, H. Akatsu, K. Kosaka, T. Yamamoto, M. Imagawa, T. Hamaguchi, M. Yamada, T. Morihara, M. Takeda, T. Takao, K. Nakata, Y. Fujisawa, K. Sasaki, K. Watanabe, K. Nakashima, K. Urakami, T. Ooya, M. Takahashi, T. Yuzuriha, K. Serikawa, S. Yoshimoto, R. Nakagawa, J. W. Kim, C. S. Ki, H. H. Won, D. L. Na, S. W. Seo, I. Mook-Jung, P. St George-Hyslop, R. Mayeux, J. L. Haines, M. A. Pericak-Vance, M. Yoshida, N. Nishida, K. Tokunaga, K. Yamamoto, S. Tsuji, I. Kanazawa, Y. Ihara, G. D. Schellenberg, L. A. Farrer and R. Kuwano. "Sor11 Is Genetically Associated with Late-Onset Alzheimer's Disease in Japanese, Koreans and Caucasians." *PLoS One* 8, no. 4 (2013): e58618.
146. Pang, B., M. B. Durso, **R. L. Hamilton** and M. N. Nikiforova. "A Novel Cold-Pcr/Fmca Assay Enhances the Detection of Low-Abundance Idh1 Mutations in Gliomas." *Diagn Mol Pathol* 22, no. 1 (2013): 28-34.
147. Reitz, C., G. Jun, A. Naj, R. Rajbhandary, B. N. Vardarajan, L. S. Wang, O. Valladares, C. F. Lin, E. B. Larson, N. R. Graff-Radford, D. Evans, P. L. De Jager, P. K. Crane, J. D. Buxbaum, J. R. Murrell, T. Raj, N. Ertekin-Taner, M. Logue, C. T. Baldwin, R. C. Green, L. L. Barnes, L. B. Cantwell, M. D. Fallin, R. C. Go, P. Griffith, T. O. Obisesan, J. J. Manly, K. L. Lunetta, M. I. Kamboh, O. L. Lopez, D. A. Bennett, H. Hendrie, K. S. Hall, A. M. Goate, G. S. Byrd, W. A. Kukull, T. M. Foroud, J. L. Haines, L. A. Farrer, M. A. Pericak-Vance, G. D. Schellenberg and R. Mayeux. "Variants

Ronald L. Hamilton, M.D.

in the Atp-Binding Cassette Transporter (Abca7), Apolipoprotein E 4, and the Risk of Late-Onset Alzheimer Disease in African Americans." *JAMA* 309, no. 14 (2013): 1483-92.

148. Schlegel, J., M. J. Sambade, S. Sather, S. J. Moschos, A. C. Tan, A. Winges, D. DeRyckere, C. C. Carson, D. G. Trembath, J. J. Tentler, S. G. Eckhardt, P. F. Kuan, **R. L. Hamilton**, L. M. Duncan, C. R. Miller, N. 9. Nikolaishvili-Feinberg, B. R. Midkiff, J. Liu, W. Zhang, C. Yang, X. Wang, S. V. Frye, H. S. Earp, J. M. Shields and D. K. Graham. "Merk Receptor Tyrosine Kinase Is a Therapeutic Target in Melanoma." *J Clin Invest* 123, no. 5 (2013): 2257-67.

150. Spina, S., A. D. Van Laar, J. R. Murrell, **R. L. Hamilton**, J. K. Kofler, F. Epperson, M. R. Farlow, O. L. Lopez, J. Quinlan, S. T. DeKosky and B. Ghetti. "Phenotypic Variability in Three Families with Valosin-Containing Protein Mutation." *Eur J Neurol* 20, no. 2 (2013): 251-8.

151. Tsuang, D., J. B. Leverenz, O. L. Lopez, **R. L. Hamilton**, D. A. Bennett, J. A. Schneider, A. S. Buchman, E. B. Larson, P. K. Crane, J. A. Kaye, P. Kramer, R. Woltjer, J. Q. Trojanowski, D. Weintraub, A. S. Chen-Plotkin, D. J. Irwin, J. Rick, G. D. Schellenberg, G. S. Watson, W. Kukull, P. T. Nelson, G. A. Jicha, J. H. Neltner, D. Galasko, E. Masliah, J. F. Quinn, K. A. Chung, D. Yearout, I. F. Mata, J. Y. Wan, K. L. Edwards, T. J. Montine and C. P. Zabetian. "ApoE Epsilon4 Increases Risk for Dementia in Pure Synucleinopathies." *JAMA Neurol* 70, no. 2 (2013): 223-8.

152. Yeung, J. T., **R. L. Hamilton**, K. Ohnishi, M. Ikeura, D. M. Potter, M. N. Nikiforova, S. Ferrone, R. I. Jakacki, I. F. Pollack and H. Okada. "Loh in the Hla Class I Region at 6p21 Is Associated with Shorter Survival in Newly Diagnosed Adult Glioblastoma." *Clin Cancer Res* 19, no. 7 (2013): 1816-26.

153. Yeung, J. T., **R. L. Hamilton**, H. Okada, R. I. Jakacki and I. F. Pollack. "Increased Expression of Tumor-Associated Antigens in Pediatric and Adult Ependymomas: Implication for Vaccine Therapy." *J Neurooncol* 111, no. 2 (2013): 103-11.

154. Hamilton R, Krauze M, Romkes M, Omolo B, Konstantinopoulos P, Reinhart T, Harasymczuk M, Wang Y, Lin Y, Ferrone S, Whiteside T, Bortoluzzi S, Werley J, Nukui T, Fallert-Junecko B, Kondziolka D, Ibrahim J, Becker D, Kirkwood J, Moschos S. Pathologic and gene expression features of metastatic melanomas to the brain. *Cancer*. 2013 Aug 1;119(15):2737-46. doi: 10.1002/cncr.28029. Epub 2013 May 21. PMID:23695963 [PubMed - in process]

155. Lam S, Grandhi R, Wong R, **Hamilton R**, Greene S. Neuromuscular hamartoma of the sciatic nerve: Case report and review of the literature. *Surg Neurol Int*. 2013;4:8. doi: 10.4103/2152-7806.106266. Epub 2013 Jan 18. PMID:23493803[PubMed]

156. Reitz C, Mayeux R; Alzheimer's Disease Genetics Consortium. TREM2 and neurodegenerative disease. *N Engl J Med*. 2013 Oct 17;369(16):1564-5. doi: 10.1056/NEJMc1306509#SA1. PMID:24131184

157. Tempel ZJ, Johnson SA, Richard PS, Friedlander RM, Rothfus WE, **Hamilton RL**. Parasellar arachnoid cyst presenting with a nonpupil sparing third nerve palsy mimicking a posterior communicating artery aneurysm in an adult. *Surg Neurol Int*. 2013 Jul 9;4:87. doi: 10.4103/2152-7806.114799. eCollection 2013. PMID:23956930

158. Murray PS, Kirkwood CM, Gray MC, Fish KN, Ikonomic MD, **Hamilton RL**, Kofler JK, Klunk WE, Lopez OL, Sweet RA. Hyperphosphorylated tau is elevated in Alzheimer's Disease with psychosis. *J Alzheimers Dis*. 2014 204;39:759-773. PMID:24270207

159. Oborski MJ, Laymon CM, Lieberman FS, Drappatz J, **Hamilton RL**, Mountz JM. First use of (18)F-labeled ML-10 PET to assess apoptosis change in a newly diagnosed glioblastoma multiforme patient before and early after therapy. *Brain Behav* 2014 4:312-315. PMID:24683522

160 Shin SS, Murdoch G, Hamilton RL, Faraji AH, Kano H, Zwagerman NT, Gardner PA, Lunsford LD, Friedlander RM The Pathological Response of Cavernous Malformations Following Radiosurgery. *J Neurosurg* (in press).

160. Pollack IF, Jakacki RI, Butterfield LH, **Hamilton RL**, Panigrahy A, Potter DM, Connelly AK, Dibrigge SA, Whiteside TL, Okada H. Antigen-specific immune responses and clinical outcome after vaccination with glioma-associated antigen peptides and polyinosinic-polycytidylic Acid stabilized by lysine and carboxymethylcellulose in children with newly diagnosed malignant brainstem and nonbrainstem gliomas. *J Clin Oncol*. 2014 Jul 1;32(19):2050-8. PMID:24888813

161. Naj AC, Jun G, Reitz C, Kunkle BW, Perry W, Park YS, Beecham GW, Rajbhandary RA, Hamilton-Nelson KL, Wang LS, Kauwe JS, Huentelman MJ, Myers AJ, Bird TD, Boeve BF, Baldwin CT, Jarvik GP, Crane PK, Rogaeva E, Barmada MM, Demirci FY, Cruchaga C, Kramer PL, Ertekin-Taner N, Hardy J, Graff-Radford NR, Green RC, Larson

Ronald L. Hamilton, M.D.

EB, St George-Hyslop PH, Buxbaum JD, Evans DA, Schneider JA, Lunetta KL, Kamboh MI, Saykin AJ, Reiman EM, De Jager PL, Bennett DA, Morris JC, Montine TJ, Goate AM, Blacker D, Tsuang DW, Hakonarson H, Kukull WA, Foroud TM, Martin ER, Haines JL, Mayeux RP, Farrer LA, Schellenberg GD, Pericak-Vance MA; Alzheimer Disease Genetics Consortium, Albert MS, Albin RL, Apostolova LG, Arnold SE, Barber R, Barnes LL, Beach TG, Becker JT, Beekly D, Bigio EH, Bowen JD, Boxer A, Burke JR, Cairns NJ, Cantwell LB, Cao C, Carlson CS, Carney RM, Carrasquillo MM, Carroll SL, Chui HC, Clark DG, Corneveaux J, Cribbs DH, Crocco EA, DeCarli C, DeKosky ST, Dick M, Dickson DW, Duara R, Faber KM, Fallon KB, Farlow MR, Ferris S, Frosch MP, Galasko DR, Ganguli M, Gearing M, Geschwind DH, Ghetti B, Gilbert JR, Glass JD, Growdon JH, **Hamilton RL**, Harrell LE, Head E, Honig LS, Hulette CM, Hyman BT, Jicha GA, Jin LW, Karydas A, Kaye JA, Kim R, Koo EH, Kowall NW, Kramer JH, LaFerla FM, Lah JJ, Leverenz JB, Levey AI, Li G, Lieberman AP, Lin CF, Lopez OL, Lyketsos CG, Mack WJ, Martiniuk F, Mash DC, Masliah E, McCormick WC, McCurry SM, McDavid AN, McKee AC, Mesulam M, Miller BL, Miller CA, Miller JW, Murrell JR, Olchney JM, Pankratz VS, Parisi JE, Paulson HL, Peskind E, Petersen RC, Pierce A, Poon WW, Potter H, Quinn JF, Raj A, Raskind M, Reisberg B, Ringman JM, Roberson ED, Rosen HJ, Rosenberg RN, Sano M, Schneider LS, Seeley WW, Smith AG, Sonnen JA, Spina S, Stern RA, Tanzi RE, Thornton-Wells TA, Trojanowski JQ, Troncoso JC, Valladares O, Van Deerlin VM, Van Eldik LJ, Vardarajan BN, Vinters HV, Vonsattel JP, Weintraub S, Welsh-Bohmer KA, Williamson J, Wishnek S, Woltjer RL, Wright CB, Younkin SG, Yu CE, Yu L. . Effects of multiple genetic Loci on age at onset in late-onset Alzheimer disease: a genome-wide association study. *JAMA Neurol.* 2014 Nov 1;71(11):1394-404. doi: 10.1001/jamaneurol.2014.1491

162. Pollack IF, Jakacki RI, Butterfield LH, **Hamilton RL**, Panigrahy A, Potter DM, Connelly AK, Dibrigge SA, Whiteside TL, Okada H. Antigen-specific immune responses and clinical outcome after vaccination with glioma-associated antigen peptides and polyinosinic-polycytidylic acid stabilized by lysine and carboxymethylcellulose in children with newly diagnosed malignant brainstem and nonbrainstem gliomas. *J Clin Oncol.* 2014 Jul 1;32(19):2050-8. doi: 10.1200/JCO.2013.54.0526. Epub 2014 Jun 2. PMID: 24888813

163.. Okada H, Butterfield LH, **Hamilton RL**, Hoji A, Sakaki M, Ahn BJ, Kohanbash G, Drappatz J, Engh J, Amankulor N, Lively MO, Chan MD, Salazar AM, Shaw EG, Potter DM, Lieberman FS. Induction of robust type-1 CD8+ T-cell responses in WHO grade II low-grade glioma patients receiving peptide-based vaccines in combination with poly-ICLC *Clin Cancer Res.* 2014 Nov 25. pii: clincanres.1790.2014

164. Salloway S, Sperling R, Fox NC, Blennow K, Klunk W, Raskind M, Sabbagh M, Honig LS, Porsteinsson AP, Ferris S, Reichert M, Ketter N, Nejadnik B, Guenzler V, Miloslavsky M, Wang D, Lu Y, Lull J, Tudor IC, Liu E, Grundman M, Yuen E, Black R, Brashear HR; **Hamilton RL**, Bapineuzumab 301 and 302 Clinical Trial Investigators. Two phase 3 trials of bapineuzumab in mild-to-moderate Alzheimer's disease *N Engl J Med.* 2014 Jan 23;370(4):322-33. doi: 10.1056/NEJMoa1304839.

165. Leone JP, Bhargava R, Theisen BK, **Hamilton RL**, Lee AV, Brufsky AM. Expression of high affinity folate receptor in breast cancer brain metastasis. *Oncotarget.* 2015 Jun 25. [Epub ahead of print] PMID: 24450891

166. Wang LS, Naj AC, Graham RR, Crane PK, Kunkle BW, Cruchaga C, Murcia JD, Cannon-Albright L, Baldwin CT, Zetterberg H, Blennow K, Kukull WA, Faber KM, Schupf N, Norton MC, Tschanz JT, Munger RG, Corcoran CD, Rogaevea E; Alzheimer's Disease Genetics Consortium, Lin CF, Dombroski BA, Cantwell LB, Partch A, Valladares O, Hakonarson H, St George-Hyslop P, Green RC, Goate AM, Foroud TM, Carney RM, Larson EB, Behrens TW, Kauwe JS, Haines JL, Farrer LA, Pericak-Vance MA, Mayeux R, Schellenberg GD; National Institute on Aging-Late-Onset Alzheimer's Disease (NIA-LOAD) Family Study, Albert MS, Albin RL, Apostolova LG, Arnold SE, Barber R, Barmada M, Barnes LL, Beach TG, Becker JT, Beecham GW, Beekly D, Bennett DA, Bigio EH, Bird TD, Blacker D, Boeve BF, Bowen JD, Boxer A, Burke JR, Buxbaum JD, Cairns NJ, Cao C, Carlson CS, Carroll SL, Chui HC, Clark DG, Cribbs DH, Crocco EA, DeCarli C, DeKosky ST, Demirci FY, Dick M, Dickson DW, Duara R, Ertekin-Taner N, Fallon KB, Farlow MR, Ferris S, Frosch MP, Galasko DR, Ganguli M, Gearing M, Geschwind DH, Ghetti B, Gilbert JR, Glass JD, Graff-Radford NR, Growdon JH, **Hamilton RL**, Hamilton-Nelson KL, Harrell LE, Head E, Honig LS, Hulette CM, Hyman BT, Jarvik GP, Jicha GA, Jin LW, Jun G, Jun G, Kamboh MI, Karydas A, Kaye JA, Kim R, Koo EH, Kowall NW, Kramer JH, LaFerla FM, Lah JJ, Leverenz JB, Levey AI, Li G, Lieberman AP, Lopez OL, Lunetta KL, Lyketsos CG, Mack WJ, Marson DC, Martin ER, Martiniuk F, Mash DC, Masliah E, McCormick WC, McCurry SM, McDavid AN, McKee AC, Mesulam WM, Miller BL, Miller CA, Miller JW, Montine TJ, Morris JC, Murrell JR, Olchney JM, Parisi JE, Perry W, Peskind E, Petersen RC, Pierce A, Poon WW, Potter H, Quinn JF, Raj A, Raskind M, Reiman EM, Reisberg B, Reitz C, Ringman JM, Roberson ED, Rosen HJ, Rosenberg RN, Sano M, Saykin AJ, Schneider JA, Schneider LS, Seeley WW, Smith AG, Sonnen JA, Spina S, Stern RA, Tanzi RE, Thornton-Wells TA, Trojanowski JQ, Troncoso JC, Tsuang DW, Van Deerlin VM, Van Eldik LJ, Vardarajan BN, Vinters HV, Vonsattel JP, Weintraub S, Welsh-Bohmer KA, Williamson J, Wishnek S, Woltjer RL, Wright CB, Younkin SG, Yu CE, Yu L. **Rarity of the Alzheimer disease-protective APP A673T variant in the United States.** *JAMA Neurol.* 2015 Feb;72(2):209-16. doi: 10.1001/jamaneurol.2014.2157.

Ronald L. Hamilton, M.D.

167. 2. Jun G, Ibrahim-Verbaas CA, Vronskaya M, Lambert JC, Chung J, Naj AC, Kunkle BW, Wang LS, Bis JC, Bellenguez C, Harold D, Lunetta KL, Destefano AL, Grenier-Boley B, Sims R, Beecham GW, Smith AV, Chouraki V, Hamilton-Nelson KL, Ikram MA, Fievet N, Denning N, Martin ER, Schmidt H, Kamatani Y, Dunstan ML, Valladares O, Laza AR, Zelenika D, Ramirez A, Foroud TM, Choi SH, Boland A, Becker T, Kukull WA, van der Lee SJ, Pasquier F, Cruchaga C, Beekly D, Fitzpatrick AL, Hanon O, Gill M, Barber R, Gudnason V, Campion D, Love S, Bennett DA, Amin N, Berr C, Tsolaki M, Buxbaum JD, Lopez OL, Deramecourt V, Fox NC, Cantwell LB, Tarraga L, Dufouil C, Hardy J, Crane PK, Eiriksdottir G, Hannequin D, Clarke R, Evans D, Mosley TH Jr, Letenneur L, Brayne C, Maier W, De Jager P, Emilsson V, Dartigues JF, Hampel H, Kamboh MI, de Bruijn RF, Tzourio C, Pastor P, Larson EB, Rotter JI, O'Donovan MC, Montine TJ, Nalls MA, Mead S, Reiman EM, Jonsson PV, Holmes C, St George-Hyslop PH, Boada M, Passmore P, Wendland JR, Schmidt R, Morgan K, Winslow AR, Powell JF, Carasquillo M, Younkin SG, Jakobsdóttir J, Kauwe JS, Wilhelmsen KC, Rujescu D, Nöthen MM, Hofman A, Jones L; IGAP Consortium, Haines JL, Psaty BM, Van Broeckhoven C, Holmans P, Launer LJ, Mayeux R, Lathrop M, Goate AM, Escott-Price V, Seshadri S, Pericak-Vance MA, Amouyel P, Williams J, van Duijn CM, Schellenberg GD, Farrer LA and . Collaborators (including **Hamilton RL**) (296) **A novel Alzheimer disease locus located near the gene encoding tau protein.** *Mol Psychiatry*. 2015 Mar 17. doi: 10.1038/mp.2015.23.

168. . Østergaard SD, Mukherjee S, Sharp SJ, Proitsi P, Lotta LA, Day F, Perry JR, Boehme KL, Walter S, Kauwe JS, Gibbons LE; Alzheimer's Disease Genetics Consortium; GERAD1 Consortium; EPIC-InterAct Consortium, Larson EB, Powell JF, Langenberg C, Crane PK, Wareham NJ, Scott RA. Collaborators (including **Hamilton RL**) (296) Associations between Potentially Modifiable Risk Factors and Alzheimer Disease: A Mendelian Randomization Study. *PLoS Med*. 2015 Jun 16;12(6):e1001841; discussion e1001841. doi:

169. Wang P, Bahreini A, Gyanchandani R, Lucas PC, Hartmaier RJ, Watters RJ, Jonnalagadda AR, Trejo Bittar HE, Berg A, **Hamilton RL**, Kurland BF, Weiss KR, Mathew A, Leone JP, Davidson NE, Nikiforova MN, Brufsky AM, Ambros TF, Stern AM, Puhalla SL, Lee AV, Oesterreich S. Sensitive detection of mono- and polyclonal ESR1 mutations in primary tumors, metastatic lesions and cell free DNA of breast cancer patients. *Clin Cancer Res*. 2015 Oct 23. pii: 1534.2015. PMID: 26500237

170. Salgado CM, Basu D, Nikiforova M, **Hamilton RL**, Gehris R, Jakacki R, Panigrahy A, Yatsenko S, Reyes-Múgica M. Amplification of mutated NRAS leading to congenital melanoma in neurocutaneous melanocytosis. *Melanoma Res*. 2015 Oct;25(5):453-60. PMID: 26266759

171. Shin SS, Murdoch G, Hamilton RL, Faraji AH, Kano H, Zwagerman NT, Gardner PA, Lunsford LD, Friedlander RM. Pathological response of cavernous malformations following radiosurgery. *J Neurosurg*. 2015 Oct;123(4):938-44. doi: 10.3171/2014.10.JNS14499. Epub 2015 Jun 19. PMID: 26090838

172. Mukherjee S, Walter S, Kauwe JS, Saykin AJ, Bennett DA, Larson EB, Crane PK, Glymour MM; Adult Changes in Thought Study Investigators; Religious Orders Study/Memory and Aging Project Investigators; Alzheimer's Disease Genetics Consortium. Alzheimers Dement. Genetically predicted body mass index and Alzheimer's disease-related phenotypes in three large samples: Mendelian randomization analyses. 2015 Dec;11(12):1439-51. doi: 10.1016/j.jalz.2015.05.015. Epub 2015 Jun 12. PMID: 26079416

173. Ghani M, Reitz C, Cheng R, Vardarajan BN, Jun G, Sato C, Naj A, Rajbhandary R, Wang LS, Valladares O, Lin CF, Larson EB, Graff-Radford NR, Evans D, De Jager PL, Crane PK, Buxbaum JD, Murrell JR, Raj T, Ertekin-Taner N, Logue M, Baldwin CT, Green RC, Barnes LL, Cantwell LB, Fallin MD, Go RC, Griffith PA, Obisesan TO, Manly JJ, Lunetta KL, Kamboh MI, Lopez OL, Bennett DA, Hendrie H, Hall KS, Goate AM, Byrd GS, Kukull WA, Foroud TM, Haines JL, Farrer LA, Pericak-Vance MA, Lee JH, Schellenberg GD, St George-Hyslop P, Mayeux R, Rogaeva E; Alzheimer's Disease Genetics Consortium. Association of Long Runs of Homozygosity With Alzheimer Disease Among African American Individuals. *JAMA Neurol*. 2015 Nov;72(11):1313-23. doi: 10.1001/jamaneurol.2015.1700. PMID: 26366463

174. Nikiforova MN, Wald AI, Melan MA, Roy S, Zhong S, Hamilton RL, Lieberman FS, Drappatz J, Amankulor NM, Pollack IF, Nikiforov YE, Horbinski C. Targeted next-generation sequencing panel (GlioSeq) provides comprehensive genetic profiling of central nervous system tumors. *Neuro Oncol*. 2016 Mar;18(3):379-87. doi: 10.1093/neuonc/nov289. Epub 2015 Dec 17. PMID: 2668176

175. Morrissy AS, Garzia L, Shih DJ, Zuyderduyn S, Huang X, Skowron P, Remke M, Cavalli FM, Ramaswamy V, Lindsay PE, Jelveh S, Donovan LK, Wang X, Luu B, Zayne K, Li Y, Mayoh C, Thiessen N, Mercier E, Mungall KL, Ma

Ronald L. Hamilton, M.D.

Y, Tse K, Zeng T, Shumansky K, Roth AJ, Shah S, Farooq H, Kijima N, Holgado BL, Lee JJ, Matan-Lithwick S, Liu J, Mack SC, Manno A, Michealraj KA, Nor C, Peacock J, Qin L, Reimand J, Rolider A, Thompson YY, Wu X, Pugh T, Ally A, Bilenky M, Butterfield YS, Carlsen R, Cheng Y, Chuah E, Corbett RD, Dhalla N, He A, Lee D, Li H, Long W, Mayo M, Plettner P, Qian JQ, Schein JE, Tam A, Wong T, Birol I, Zhao Y, Faria CC, Pimentel J, Nunes S, Shalaby T, Grotzer M, Pollack IF, Hamilton RL, Li XN, Bendel AE, Fults DW, Walter AW, Kumabe T, Tominaga T, Collins VP, Cho YJ, Hoffman C, Lyden D, Wisoff JH, Garvin JH Jr, Stearns DS, Massimi L, Schüller U, Sterba J, Zitterbart K, Puget S, Ayrault O, Dunn SE, Tirapelli DP, Carlotti CG, Wheeler H, Hallahan AR, Ingram W, MacDonald TJ, Olson JJ, Van Meir EG, Lee JY, Wang KC, Kim SK, Cho BK, Pietsch T, Fleischhack G, Tippelt S, Ra YS, Bailey S, Lindsey JC, Clifford SC, Eberhart CG, Cooper MK, Packer RJ, Massimino M, Garre ML, Bartels U, Tabori U, Hawkins CE, Dirks P, Bouffet E, Rutka JT, Wechsler-Reya RJ, Weiss WA, Collier LS, Dupuy AJ, Korshunov A, Jones DT, Kool M, Northcott PA, Pfister SM, Largaespada DA, Mungall AJ, Moore RA, Jabado N, Bader GD, Jones SJ, Malkin D, Marra MA, Taylor MD. Divergent clonal selection dominates medulloblastoma at recurrence. *Nature*. 2016 Jan 21;529(7586):351-7. doi: 10.1038/nature16478. Epub 2016 Jan 13

176. Gandhoke GS, Yilmaz S, Grunwaldt L, Hamilton RL, Salvetti DJ, Greene S. A case of spinal epidural venous malformation with mediastinal extension: management with combined surgery and percutaneous sclerotherapy. *J Neurosurg Pediatr*. 2016 May;17(5):612-7. doi: 10.3171/2015.9.PEDS15341. Epub 2016 Jan 15.

177. Thompson EM, Hielscher T, Bouffet E, Remke M, Luu B, Gururangan S, McLendon RE, Bigner DD, Lipp ES, Perreault S, Cho YJ, Grant G, Kim SK, Lee JY, Rao AA, Giannini C, Li KK, Ng HK, Yao Y, Kumabe T, Tominaga T, Grajkowska WA, Perek-Polnik M, Low DC, Seow WT, Chang KT, Mora J, Pollack IF, Hamilton RL, Leary S, Moore AS, Ingram WJ, Hallahan AR, Jouvett A, Fèvre-Montange M, Vasiljevic A, Faure-Conter C, Shofuda T, Kagawa N, Hashimoto N, Jabado N, Weil AG, Gayden T, Wataya T, Shalaby T, Grotzer M, Zitterbart K, Sterba J, Kren L, Hortobágyi T, Klekner A, László B, Pócza T, Hauser P, Schüller U, Jung S, Jang WY, French PJ, Kros JM, van Veelen MC, Massimi L, Leonard JR, Rubin JB, Vibhakkar R, Chambless LB, Cooper MK, Thompson RC, Faria CC, Carvalho A, Nunes S, Pimentel J, Fan X, Muraszko KM, López-Aguilar E, Lyden D, Garzia L, Shih DJ, Kijima N, Schneider C, Adamski J, Northcott PA, Kool M, Jones DT, Chan JA, Nikolic A, Garre ML, Van Meir EG, Osuka S, Olson JJ, Jahangiri A, Castro BA, Gupta N, Weiss WA, Moxon-Emre I, Mabbott DJ, Lassaletta A, Hawkins CE, Tabori U, Drake J, Kulkarni A, Dirks P, Rutka JT, Korshunov A, Pfister SM, Packer RJ, Ramaswamy V, Taylor MD. Prognostic value of medulloblastoma extent of resection after accounting for molecular subgroup: a retrospective integrated clinical and molecular analysis. *Lancet Oncol*. 2016 Mar 11. pii: S1470-2045(15)00581-1. doi: 10.1016/S1470-2045(15)00581-1. [Epub ahead of print]

178. Pollack IF, Jakacki RI, Butterfield LH, Hamilton RL, Panigrahy A, Normolle DP, Connelly AK, Dibridge S, Mason G, Whiteside TL, Okada H. Immune responses and outcome after vaccination with glioma-associated antigen peptides and poly-ICLC in a pilot study for pediatric recurrent low-grade gliomas†. *Neuro Oncol*. 2016 Mar 15. pii: now026. [Epub ahead of print]

179. Jakacki RI, Cohen KJ, Buxton A, Krailo MD, Burger PC, Rosenblum MK, Brat DJ, Hamilton RL, Eckel SP, Zhou T, Lavey RS, Pollack IF. Phase 2 study of concurrent radiotherapy and temozolomide followed by temozolomide and lomustine in the treatment of children with high-grade glioma: a report of the Children's Oncology Group ACNS0423 study. *Neuro Oncol*. 2016 Mar 22. pii: now038. [Epub ahead of print]

180. Ridge PG, Hoyt KB, Boehme K, Mukherjee S, Crane PK, Haines JL, Mayeux R, Farrer LA, Pericak-Vance MA, Schellenberg GD, Kauwe JS; Alzheimer's Disease Genetics Consortium (ADGC). Assessment of the genetic variance of late-onset Alzheimer's disease. *Neurobiol Aging*. 2016 May;41:200.e13-20. doi: 10.1016/j.neurobiolaging.2016.02.024. Epub 2016 Mar 3

181. Beckner ME, Pollack IF, Nordberg ML, Hamilton RL. Glioblastomas with copy number gains in EGFR and RNF139 show increased expressions of carbonic anhydrase genes transformed by ENO1. *BBA Clin*. 2015 Nov 10;5:1-15. doi: 10.1016/j.bbacli.2015.11.001. eCollection 2016 Jun. PMID: 27051584 Free PMC Article

182. Fernandes-Cabral DT, Zenonos GA, Hamilton RL, Panesar SS, Fernandez-Miranda JC. High-Definition Fiber Tractography in the Evaluation and Surgical Planning of Lhermitte-Duclos Disease: A Case Report. *World Neurosurg*. 2016 May 7. pii: S1878-8750(16)30257-1. doi: 10.1016/j.wneu.2016.04.128. [Epub ahead of print] PMID: 27168233

Reviews, invited published papers, proceedings of conference and symposia, monographs, books and book chapters

Ronald L. Hamilton, M.D.

1. **Hamilton RL**, Wiley CA. New developments in the neuropathology of AIDS. *CAP Today*, 10 (12): p 42, 1996.
2. **Hamilton RL**: Hydrocephalus in a 9 month-old infant. *Brain Pathol* 6:533-534, 1996
3. **Hamilton RL**: New onset hemiparesis. *Brain Pathol* 7: 715-716, 1997.
4. **Hamilton RL**: Precocious Puberty. *Brain Pathol* 7: 711-712, 1997
5. **Hamilton RL**: Frontal lobe tumor in 11 year-old girl. *Brain Pathol* 7: 713-714, 1997
6. **Hamilton RL**, Pollack, IF: The Molecular Biology of Ependymomas. *Brain Pathology* 7:807-822, 1997.
7. **Hamilton RL**: A 26 year old woman with new onset seizures. *Brain Pathol* 8: 239-240, 1997.
8. **Hamilton RL**, Wiley, CA, *The Neuropathology of Viral Infections of the Nervous System*. In: *Textbook of Neuropathology*; Davis RL, Robertson DM eds. Williams and Wilkins, 3rd edition, Baltimore, MD. 1997.
9. **Hamilton RL**: Guidelines for the neuropathological diagnosis of Alzheimer's Disease and Dementia with Lewy Bodies. *Revista de Neurologia* 27 (S1): S67-S70, 1998
10. **Hamilton RL**: Experimental neuropathology of Alzheimer's Disease: animal models. *Revista de Neurologia* 27 (S1): S84-S86, 1998
11. Sanders VJ, Wiley CA, **Hamilton RL**: The mechanisms of neuronal damage in retroviral infections of the nervous system. in *The Mechanisms of Neuronal Damage in Virus Infections of the Nervous System* (Gosztonyi G, ed). Springer Verlag, Berlin, 2001.
12. **Hamilton RL**. [Recent Advances in the neuropathological evaluation of Alzheimer's Disease: the importance of synuclein] *Rev Neurol* 35:765-7, 2002 (Spanish).
13. Pollack IF, **Hamilton RL**, Finkelstein SD, Lieberman F. Molecular abnormalities and correlations with tumor response and outcome in glioma patients. *Neuroimaging Clinics of North America: Advances in Brain Tumor Imaging and Therapy* (Provenzale J, ed.) WB Saunders, Philadelphia, 2002.
14. **Hamilton RL**. The other dementias: the neuropathology of the non-Alzheimer's Disease dementias. *Rev Neurol* 37:130-139, 2003 (Spanish).
15. Omalu BI, Wiley CA, **Hamilton RL**. Case of the Month February 2003. *Brain Pathology* 13:419-420, 2003.
16. DeKosky ST, Ikonovic MD, **Hamilton RL**, Bennett DA, Mufson EJ. Neuropathology of Mild Cognitive Impairment in the Elderly. In John Morris J, Scheltens P, and Cummings JL), (eds), *Alzheimer's Disease and Related Disorders*: London, Taylor & Francis, 1-16, 2006.
17. Crain BJ, Alston SR, Bruch LA, **Hamilton RL**, McLendon RE, Rhodes H, Tihan T, Weidenheim KM. Accreditation Council for Graduate Medical Education (ACGME) Competencies in Neuropathology Training. *J Neuropathol Exp Neurol* 64:273-279, 2005.
18. McIntyre JA, **Hamilton RL**, Dekosky ST. Redox-reactive autoantibodies in cerebrospinal fluids. *Annals of NY Acad Sci* 1109: 296-302, 2007.
19. DeKosky ST, Kaufer DI, **Hamilton R**, Wolk D, Lopez OL: Dementia. In: Neurology in Clinical Practice: Principles of Diagnosis and Management, 5th Edition. Editors: Bradley WG, Daroff RB, Fenichel GM & Jankovic J. Boston MA, Butterworth-Heinemann, 2007: 1855-1907.
20. Tyurin VA, Tyurina YY, Kochanek PM, **Hamilton R**, DeKosky ST, Greenberger JS, Bayir H, Kagan VE. Chapter 19: Oxidative lipidomics of programmed cell death. *Methods Enzymol* 442:375-93, 2008.
21. Yeane GA, O'Conn SM, Jankowitz BT, **Hamilton RL**. A 16 year-old male with cerebellar mass. *Brain Pathol*. 2009 19, 167-170. PMID 19076785
22. Horbinski, C, **Hamilton RL**. Application of telepathology for neuropathologic intraoperative consultations. *Brain Pathol* 2009 19; 317-322. PMID 19290998

Abstracts

1. **Hamilton RL**, Sanger WG, and McComb RD: Characterization of cell lines derived from malignant tumors in patients with neurofibromatosis. *Federation Proceedings* 46: 433, 1987.
2. Esch O, Spinoso JC, **Hamilton RL**, Crombie DL, Scheigart CD, Hofmann AF: Reversible cytotoxicity to the gallbladder mucosa of contact dissolution solvents for cholesterol gallstones: a comparison of methyl tert-butyl ether (mtbe) and ethyl propionate (ep) in two animal models. *Gastroenterology* 100 (5, part 2): A135, 1991.

Ronald L. Hamilton, M.D.

3. Haas RH, Popovitch B, **Hamilton RL**: The utility of DNA dystrophin gene analysis in non-specific myopathy: presented at Child Neurology Society Annual Meeting, October, 1992: New Orleans, LA.
4. Haas RH, Mansden DL, Estrada S, **Hamilton RL**, Grafe MG, Nyhan WL: Acute basal ganglia infarction in propionic acidemia in spite of good metabolic control: presented at Child Neurology Society Annual Meeting, October, 1992: New Orleans, LA.
5. **Hamilton RL**, Haas RH, Nyhan W, Powell HP, Grafe MR: The neuropathology of propionic acidemia: a report of two additional cases. American association of Neuropathology Annual Meeting, June 1993, Salt Lake City, UT; J Neuropathol Exp Neurol 52:299, 1993.
6. Mansfield RT, Schiding JK, **Hamilton R**, Kochanek PM: Hypothermia fails to reduce lesion volume after traumatic brain injury in immature rats. Pediatric Research 35(4):55, 1994.
7. **Hamilton RL**, Bodnar RJ, Wang G, Wiley CA. The effect of AZT on retroviral encephalitis: a murine model: presented at the Sixth Workshop on the Pathogenesis of Animal Retroviruses, Philadelphia, PA, Nov. 17-19, 1994.
8. Adelson PD, Robichaud P, **Hamilton RL**, Kochanek PM. Brain edema and neuropathology after diffuse traumatic injury in immature rats. Neurotrauma Society meeting, San Diego CA, Nov 10-11, 1995.
9. **Hamilton RL**, Bodnar RJ, Wang G, Klunk W, Wiley CA, Treatment of chronic retroviral encephalitis with zidovudine (AZT) in a murine model. Society for Neuroscience Meeting, San Diego, CA Nov 11-16 1995.
10. **Hamilton RL**, Bodnar RJ, Wang G, Klunk W, Wiley CA. The effect of zidovudine (AZT) on murine retroviral encephalitis. Amer. Assoc of Neuropathology, San Antonio, June, 1995. J Neuropathol Exp Neurol 54 (3): 438, 1995.
11. **Hamilton RL**, and Claassen D. Neonatal Methylmalonic Acidemia With Hemicerebellum: An Autopsy Report; Society of Pediatric Pathology / Child Neurology Society (joint meeting), Baltimore, Oct 27-29, 1995.
12. **Hamilton RL**, Baldwin M, Wiley CA. Human Herpesviruses And Temporal Arteritis American Association of Neuropathology, Vancouver, BC, Canada, June 1996.
13. Mizukami K, Ikonovic MD, Sheffield R, Rubin RT, Grayson D, **Hamilton R**, Warde D, Armstrong DM. Immunohistochemical Localization of GABA-A Receptor $\beta 2/3$ Subunits in the Hippocampal Formation in Aged Brain with Alzheimer-related Neuropathology. Society for Neuroscience meeting, Washington DC, Nov 1996.
14. Bodnar RJ and **Hamilton RL**. Effect of zidovudine (AZT) and saquinavir on retroviral infection of the central nervous system (CNS) Society for Neuroscience meeting, Nov 17-21, 1996 Washington D.C.
15. Bredel M, Pollack I, **Hamilton RL**, Finkelstein SD, Campbell JW, Martinez AJ, Sherwin R, Bozik ME, Gollin S. Overexpression of EGF receptor and p53 mutations in pediatric malignant gliomas. American Association of Neurological Surgeons, 1997 Annual meeting.
16. Xu Y, Liachennko S, Tang P, **Hamilton RL** Correlation of neuropathologic changes with cerebral metabolic and ADC abnormalities after prolonged asphyxial cardiac arrest. International Society of Magnetic Resonance in Medicine, annual meeting, 1997
17. Bredel M, Pollack IF, Campbell JW, **Hamilton RL**. Basic fibroblast growth factor as a prognostic indicator in pediatric high grade glioma patients. American Association of Neuropathology, Pittsburgh, PA, June 1997. J Neuropathol Exp Neurol 56 (5): 581, 1997
18. **Hamilton RL**, Bodnar RJ, Lackner AA, Lane JH, Wiley CA Neurotrophic factors in simian immunodeficiency virus encephalitis. American Association of Neuropathology, Pittsburgh, PA, June 1997. J Neuropathol Exp Neurol 56 (5): 618, 1997
19. Adelson, PD, Robichaud, P, **Hamilton, RL**, Kochanek, PM. Histologic analyses of severe diffuse traumatic brain injury in the immature rat . National Neurotrauma Society, New Orleans Oct 24-25, 1997.
20. Dorsey RW, Achim CL, Wiley CA, **Hamilton RL***, Soontornniyomkij V. Gene expression and cellular localization of neurotrophic factors in Alzheimer's disease. Society of Neuroscience meeting Nov, 1997, New Orleans.
21. Klunk WE, **Hamilton RL**, Styren SD, Styren G, Debnath ML, Mathis CA, Mahood K, Hsiao KK. Staining of AD and Tg2576 mouse brain with X-34, a highly fluorescent derivative of chrysamine

Ronald L. Hamilton, M.D.

- G and A potential in vivo probe for sheet fibrils. Society for Neuroscience meeting, New Orleans 1997.
22. Klunk WE, **Hamilton RL**, Styren SD, Styren G, Debnath ML. Neuropathological study of AD brain with X-34, a new highly fluorescent derivative of congo red. Society for Neuroscience meeting. Los Angeles, CA 1998.
 23. Halks-Miller M, Hesselgesser J, Horuk R, Soontornniyomkij V, **Hamilton R**, Achim C. CCR1 immunoreactivity in Alzheimer's Disease brains. Society for Neurosciences meeting. Los Angeles, CA 1998.
 24. Wang G, Soontornniyomkij V, Pittman CA, Achim CL, Wiley CA, **Hamilton RL**. Glial expression of BDNF and TRK B receptor proteins in Alzheimer's Disease and HIV-1 encephalitis brains. Society for Neuroscience meeting. Los Angeles, CA 1998.
 25. Ikonomic MD, Mizukami K, Davies P, **Hamilton R**, Sheffield R, Armstrong DM. Co-localization of interneurons and an ad-specific antibody in the hippocampal formation of Alzheimer brains. Society for Neurosciences. Los Angeles, CA 1998.
 26. Mizukami K, Ikonomic MD, Grayson DR, Rubin RT, Warde D, Sheffield R, **Hamilton RL**, Davies P, Armstrong DM. Immunohistochemical study of GABA(A) receptor beta 2/3 subunits in the hippocampal formation of aged brains with Alzheimer-related neuropathologic changes. *Experimental Neurology* 147 2 333-45 (1997).
 27. Bredel M, Pollack IF, **Hamilton RL**: Expression of the c-erbB1 Oncogene Product Epidermal Growth Factor Receptor (EGFR) and its Relevance for Outcome in Children with Supratentorial High-Grade Gliomas ; XVI Congress of the European Society for Pediatric Neurosurgery; November 11-15, 1998, Marseille, France
 28. **Hamilton, RL** Numerous widespread alpha-synuclein positive thread-like processes characterize dementia with Lewy Bodies. Foundation IPSEN Conference, April 12, 1999, Paris France
 29. **Hamilton RL** Numerous and widespread alpha-synuclein thread-like processes in dementia with Lewy bodies. American Assoc of Neuropathologist Annual Meeting, 1999, Portland, OR. *J Neuropathol Exper Neurol* 58:552, 1999.
 30. Klunk WE, **Hamilton RL**, Styren SD, Head E: Evaluation of the aged canine as a screening system for the x-34 class of in vivo probes for amyloid deposition in AD. Soc. of Neuroscience, 1999
 31. Kaufer, DL, **Hamilton RL**, Lopez OL, DeKosky ST MRI white matter hyperintensities and cerebral amyloid angiopathy in a case of dementia with Lewy bodies. Amer Neuropsychiatric Assoc, annual meeting, 2/2000, Ft. Myers, FLA.
 32. **Hamilton RL**, Mash DC. Widespread Alpha-synucleinopathy in the Parkinson's Disease brain. 6th National Parkinson's Disease Foundation International Symposium on Parkinson's Disease Research, to be held in conjunction with the Society of Neuroscience meeting in Miami Beach, Oct 22-23rd, 1999.
 33. **Hamilton, RL**, Mash DC. Widespread alpha-synuclein-positive neuropil threads in the Parkinson's Disease brain. American Assoc of Neuropathology, Atlanta, GA, June 8-11, 2000.
 34. Snyder JV, Gebel JM, Kassam A, **Hamilton RL**, Goldstein S, Watkins S, Yonas H, Chelluri L, Thulborn K. Guidance by MR Tissue Sodium Concentration of Infarct Resection in Massive Stroke. *Neurology* 54(7): A97-A98, Suppl. 3, 2000.
 35. Chow TM, Kaufer DI, Lopez OL, **Hamilton RL**, Becker JT, DeKosky ST. Temporal Evolution of Lewy Body Phenotype in Autopsy Confirmed Cases of Alzheimer's Disease and Dementia With Lewy Bodies. *Neurology* 56(8): A300-A301, Suppl 3, 2001.
 36. Castellano-Sanchez A, Ohgaki HH, Yokoo, Finkelstein SD, Medina-Flores R, **Hamilton RL**, Scheithauer BW, Burger PC, Brat DJ. Genetic Alterations in Granular Cell Astrocytomas. USCAP, 2002.
 37. Demidovich J, Pittman CA, Hamilton RL. Altered calpain proteolysis of mutant alpha-synuclein. Honors Thesis presentation, Univ. Pitt, 2002
 38. Omalu BI, **Hamilton RL**, Swalsky PA, Finkelstein SD. Microdissection-based mutational profiling of malignant, atypical and benign meningiomas: the determination of meningioma grade by fractional mutational index. AANP, Denver, 2002 (JNEN 61:491, 2002)
 39. Wilson, RK, Luedeking-Zimmer EK, Kamboh MI, DeKosky ST, **Hamilton RL**. Association of the ApoE4 allele and Lewy bodies in Alzheimer's Disease. AANP, Denver 2002 (JNEN 61: 455, 2002).

Ronald L. Hamilton, M.D.

40. Desai PP, Ikonovic MD, **Hamilton RL**, DeKosky ST, Kamboh MI. Apolipoprotein D in Alzheimer's Disease: implications for amyloid pathology. Soc. for Neuroscience, Orlando, 2002.
41. Garb S, **Hamilton RL**. Sequestration of soluble alpha-synuclein in Lewy body Variant of Alzheimer's Disease. Soc for Neuroscience, Orlando, 2002.
42. Marshall GA, Kaufer DI, Lopez OL, Rao GR, **Hamilton RL**, DeKosky ST. A neuropathological correlate of anosognosia in Alzheimer's Disease. American Association of Neurology, May 2003.
43. Sweet RA, Butters MA, **Hamilton RL**, Mulsant BH, Lopez OL, PollockBG, DeKosky ST, Reynolds CF Neuropathology Of Late Life Mood Disorders. American College of Neuropsychopharmacology, 2003
44. Mohan D, Couce ME, Wiley CA, **Hamilton RL**, Sasatomi E, Swalsky PA, Lieberman MD, Finkelstein SD. Microdissection based genotyping of human gliomas: diagnostic and prognostic considerations (USCAP, Vancouver 3/04)
45. Beckner ME, Sasatomi E, Swalsky PA, **Hamilton RL**, Pollack, IF, Finkelstein SD. Loss of heterozygosity reveals non-VHL Allelic loss in hemangioblastomas at 22q13, (AANP Cleveland, June 24-27, 2004).
46. Judkins AR, Burger P, **Hamilton RL**, Kleinschmidt-DeMasters B, Perry A, Pomeroy S, Rosenblum MK, Yachnis AT, Rorke LB, Biegel JA. INI1 Expression Distinguishes Atypical Teratoid/Rhabdoid Tumor (ATR) from Choroid Plexus Carcinoma (CPC); (AANP Cleveland, June 24-27, 2004).
47. McFadden KA, **Hamilton RL**, Visvesvara GS, Gardner P, Couce ME. Granulomatous Amebic Encephalitis in a Patient with Gardners Syndrome and Multi-organ Transplant (AANP Cleveland, June 24-27, 2004).
48. Yen, Amy, Lopez, OL, BeckerJ, **Hamilton RL**. Mesial Temporal Sclerosis is associated with Lewy Bodies in Alzheimer's Disease. AANP Annual meeting June 9-12, 2005, Arlington, VA (platform). (J Neuropathol Exper Neurol 64:434, 2005).
49. Hinkle DA, Mullett SJ, **Hamilton RL** DJ-1 is over-expressed in human stroke reactive astrocytes. Society for Neuroscience Oct 2005.
50. Ramsey CP, Glass CA, Marshall MB, Morgan KL, Kioke MA, **Hamilton R**, Chu CT, Jordan-Sciutto KL. Altered expression patterns of the antioxidant response transcriptional regulator NRF2, in Alzheimer's Disease and Parkinson's Disease. Society For Neuroscience, Nov. 2005, Washington DC.
51. Chu CT, Uchiyama Y, **Hamilton R**, Zhu J. Extracellular signal regulated protein kinase acts upstream of both autophagy and cell death in MPP+ treated neurons. Society For Neuroscience, Nov. 2005, Washington DC
52. Cieply K, Carol R. Sherer, Jennifer L. Hunt **Hamilton RL** Assessment of 1p and 19q Status in Pediatric Oligodendrogliomas by FISH, Association of Molecular Pathology, Nov 10-13, 2005 Scottsdale AZ
53. Bencherif B, Lieberman FS, Wenzhu B, Price JC, Muthukrishnan A, Walter K, **Hamilton RL**, Lunsford LD, Mountz JM. Increased F-18 Fluorothymidine Uptake is Seen in Non-Proliferating Recurrent/Residual Glioma Society for Nuclear Medicine, San Diego, 2006 June 3-7
54. **Hamilton, RL** Variations On A Theme: Lewy Bodies And Mesial Temporal Sclerosis In Alzheimer's Disease: A Review Of 278 Autopsy Cases. 10th International Conference on Alzheimer's Disease, Madrid, Spain, July-15-20, 2006.
55. DeKosky ST, Mathis CA, Price JC, Ikonovic MD, **Hamilton RL**, Abrahamson EE, Paljug WR, Debnath ML, Hope CE, Isanski BA, Tsopelas ND, Lopresti BJ, Ziolk S, Bi W and Klunk WE. Correlation of In Vivo PiB Retention and Post-Mortem A β Levels: A Case Study. 10th International Conference on Alzheimer's Disease, Madrid, Spain, July-15-20, 2006.
56. Leverenz J, **Hamilton RL**, Larson E, Vavrek D, Lopez O, Galasko D, Masliah E, Kaye J, Nixon R, Clark C, Trojanowski J, Kukull W, Montine T, Tsuang D. Lewy-Related Pathology in Two Large Autopsied Dementia Samples: Application of Classification Criteria. 10th International Conference on Alzheimer's Disease, Madrid, Spain, July-15-20, 2006.
57. Venneti S, Lopresti BJ, Wang G, Mathis CA, Klunk WE, Shmookler AD, **Hamilton RL**, Apte UM, Wiley CA. PET imaging of microglia in a mouse model of Alzheimer's disease. 10th International Conference on Alzheimer's Disease, Madrid, Spain, July-15-20, 2006.
58. Kofler JK, Moore RA, **Hamilton RL**. Concomitant Dementia with Lewy Bodies and Multiple System Atrophy in a Demented Patient. International Congress of Neuropathology/American Association of Neuropathology Annual Meeting, San Francisco, CA, Sept 10-15, 2006.

Ronald L. Hamilton, M.D.

59. DeKosky ST, Mathis CA, Price JC, Ikonomic MD, **Hamilton RL**, Abrahamson EE, Paljug WR, Debnath ML, Hope CE, Isanski BA, Tsopelas ND, Lopresti BJ, Ziolk S, Bi W, Klunk WE. Correlation of Regional in vivo Pittsburgh Compound B (PIB) Retention With in vitro PIB, A β Levels, and Amyloid Plaque Density: Validation of PIB-PET in Postmortem Human Brain. Alzheimer's Association International Conference on Prevention of Dementia. June 9-12, 2007 Washington, D.C.
60. Kellermier HC, Nikiforova MN, Cieply K, **Hamilton RL**. Alterations of 1p in glioblastomas. ASIP/AANP Annual meeting, Washington DC April 2007.
61. Bliecher AG, Branstetter BF, Hamilton R, Murdoch G, Kellermier HC. Clival Chordoma: Radiologic-Pathologic Correlations. American Society of Neuroradiology annual meeting, Chicago, IL. June 9-14, 2007.
62. Butters MA, Aizenstein HJ, Meltzer CC, **Hamilton RL**, Price JC, Mathis CA, Klunk WE, Becker JT, DeKosky ST, Reynolds CF. Cognition, cerebrovascular disease and Alzheimer's Disease in late-life depression. International Neuropsychological Society meeting, Bilbao Spain, July 2007.
63. Tyurin VA, Zhao Q, Mnuskin A, **Hamilton R**, DeKosky ST, Reynolds WF, Kagan VE. Phospholipid peroxidation biomarkers of Alzheimer's Disease in the Brain: Selective Oxidation of Phosphatidylserine. Society of Toxicology Meeting San Diego, CA. October 2, 2007.
64. Moschos SJ, D. Trembath D, Snavely A, Bradler E, Midkiff B, Nikolaishvilli-Feinberg N, Werley J, Krauze M, **Hamilton R**, Kirkwood JM. Prognostic Significance of PD-L1 Expression, Angiogenesis, and Hypoxia in Melanoma Brain Metastases (MBM); A Histopathologic Analysis. Annual meeting of the American Association of Clinical Oncology, Chicago Il, 5/29-6/2/2014.
65. Trembath DG, Moschos SJ, Snavely AC, Bradler E, Nikolaishvilli-Feinberg N, Bentley R. Midkiff BR, Jonette Werley J, Krauze MT, **Hamilton RL**. Analysis of select angiogenic markers in melanoma brain metastases. Annual meeting AANP, Portland OR. June 2014
66. Salgado CM, Basu D, Nikiforova M, Hamilton R, Gheris R, Jakacki R, Panigrahy A, Yatsenko S, Reyes-Mugica M. Congenital Melanoma: The full spectrum og p.Q61R mutation in NRAS. Accepted for the Annual Soc. Pediatric Pathology meeting, Birmingham UK, Sept 4-6, 2014.
67. Melan MA, Wald AI, Zhong S, **Hamilton R**, Horbinski C. Nikiforova MN. BrainSeq: Next-Generation Sequencing Panel for Detection of Genetic Alterations in Central Nervous System (CNS) Malignancies. National Harbor MD, Nov 12-15, 2014.
68. Hamilton RL. Chronic Traumatic Encephalopathy: Update on an Emerging Disease. Invited speaker: 18th International Congress of Neuropathology, July 12-16, 2014, Rio de Janeiro, Brazil
69. Hamilton RL. Cases of the Month: 16 Years of Unknowns. Invited speaker: 18th International Congress of Neuropathology, July 12-16, 2014, Rio de Janeiro, Brazil
70. Trembath DG, Moschos SJ, Snavely AC, Bradler E, Nikolaishvilli-Feinberg N, Midkiff BR, Werley J, **Krauze MT, Hamilton RL Role of PD-L1, HIF-1 α , and reactive gliosis in melanoma brain metastases.** USCAP 2015, Boston, MA, March 21-27, 2015.
71. Nolan Priedigkeit, Ryan J. Hartmaier, Yijing Chen, Damir Vareslija, Ahmed Basudan, Roby Thomas, Jose P Leone, Peter C. Lucas, Rohit Bhargava, Ron L. Hamilton, Juliann Chmielecki, Nancy E. Davidson, Steffi Oesterreich, Adam M. Brufsky, Leonie Young, Adrian V. Lee Breast cancer brain metastases show limited intrinsic subtype switching, yet exhibit acquired ERBB2 amplifications and activating mutations. San Antonio Breast Cancer Symposium, 12/7/16
72. Steffi Oesterreich, Ahmed Basudan, Nolan Priedigkeit, Ryan Hartmaier, Amir Bahreini, Rekha Gyanchandani, Jose P Leone, Peter Lucas,, Rohit Bhargava, Ron Hamilton, Ryan Hartmaier, Adam Brufsky, Adrian V. Lee Perivascular Inflammation in Temporal Artery Biopsies That Are Negative for Arteritis: Incidental or Harbinger American College of Rheumatology/ Association of Rheumatology Health Professionals (ACR/ARHP) Annual Meeting, Washington DC, 11/13/16
73. Expression of Carbonic Anhydrase Genes, CA3 and CA12, Transformed with ENO1, Relate to Copy Numbers of EGFR or RNF139 and XIAP, and Gender in Glioblastomas Using PCR Assays. Experimental Biology 2015 Annual Meeting
74. Evaluation of GlioSeq Targeted NGS Panel for Detection of O6-Methylguanine-DNA Methyltransferase (MGMT) mRNA Expression in Glioma Patients Alicia Hunt, Sarika Jain, Melissa A Melan, Abigail Wald, Ronald Hamilton, Marina N. Nikiforova Association For Molecular Pathology (AMP) Charlotte, NC. November 10-12, 2016.

PROFESSIONAL ACTIVITIES

Ronald L. Hamilton, M.D.

TEACHING

University of California, San Diego, Dept of Neuroscience
 1991-93 lab assistant - graduate neuroanatomy course

University of California, San Diego, School of Medicine
 1991-93 Sophomore pathology course, neuropathology section (lab assistant)

University of California, San Diego, Dept of Pathology
 1991-93 Clinical Correlation Conference - Neuropath and Neurosurgery (monthly)
 1991-93 Neuropathology review for neurology residents (bi-monthly)

University of Pittsburgh, School of Medicine
 Freshman pathology course –
 PBL facilitator for musculoskeletal course 1994-1998
 Neuroscience Module – lecture M2 students full class: CNS tumors
 Annually since 1999.
 April 29, 2014 1-3 pm
 Neuroscience Module lecture MS1 students
 CNS tumors March 2004
 CNS tumors March 2005
 CNS tumors March 2006
 CNS Tumors 5/7/07
 Neuroscience rotation – small weekly lab, M3 students
 7/99-present
 Neuroscience rotation – small group M3 students
 6/18/2007 3-5pm

Weekly brain-cutting conference at Children's Hospital (2-5 medical (M3) students/week)
 Academic Advising: Kate McFadden 2/2000 to 6-2001

Other:
 High school - gifted science students of Mr. James Coll
 11/21/2002 , 11/14/ 2003, 10/28/2004, 11/18/2005, 11/3/2006

University of Pittsburgh, graduate students
 Cellular and Molecular Mechanisms of Neurodegeneration (MSCMP 3720)
 Organizers: Robert Bowser, Cristian Achim,
 1. Neuroanatomy and Neurohistology in neurodegeneration
 1/13/98, 1/19/99
 2. Mitochondria and disease / Prion encephalopathies
 3-24-98
 3. The role of alpha-synuclein in neurodegenerative diseases
 10-11-00

Molecular Pathobiology (organizers Frye and Achim) (MSCMP 2740)
 .Tumors of the Central Nervous System, 4-7-98, 4-20-99
 Alpha-synuclein and Neurodegeneration
 4-2003, 1/8/04, 5/15/06
 Neuropathology of Neurodegeneration
 1/6/04
 Alpha-synuclein and Tau in Neurodegeneration
 1/5/07, 2/7/2008
 Pathologic diagnosis of the Lewy Body Disorders
 2/12/09

University of Pittsburgh, Dept of Neuroscience - Combined Neuroscience Conference Wed 4-5
 10/3/95 * Varicella Zoster Infections of the CNS in AIDS patients
 10/9/96 * Lewy Bodies and Dementia
 2/19/97 * The Neuropathology of Pediatric Seizures
 4/23/97 * CNS manifestations of non-CNS tumors in children
 2/11/98 Case Presentation with Ian Pollack

Ronald L. Hamilton, M.D.

3/18/98 * A 77 year old woman with Multiple sclerosis and dementia
11/4/98 *Pediatric meningiomas – two cases
1/20/99 Methanol Intoxication – with C. Foley
2/3/99 Gliomatosis cerebri with Dallasta
2/10/99 Amyloid angiopathy and leukomalacia – with D. Kaufer
3/17/99 Metachromatic Leukodystrophy – with D. Kaufer
9/18/02 Iatrogenic CJD*
* as primary presenter

University of Pittsburgh, Dept. of Pathology, Chief Resident's Fri noon slide conference

8/1/96 - Pediatric brain tumors
10/5/97 Pediatric brain tumors
1/9/98 NP REVIEW - Tumors I
1/16/98 NP REVIEW - Tumors II
1/23/98 NP REVIEW - Tumors III
1/30/98 NP REVIEW - Infections
2/6/98 NP REVIEW - Demyelinative diseases
2/13/98 NP REVIEW - Neurodegenerative diseases
2/20/98 NP Review - Cerebrovascular disease and developmental
5/24/02 Pediatric Neoplasms and Congenital Malformations
5/31/02 Degenerative Diseases

University of Pittsburgh, undergraduate

Independent Course and Honors Research Project –
Theodore Kaplan (1/97-6/97)
Emily Rogerson (1/99-5/99, 9/99-12/99, 1/00-4/00)
Kyle Hubbard (1/99 – 5/99, 9/99-12/99, 1/00-4/00)
Joe Demidovich – 2000-2002
Stan Garb (2001-2001)

Pathology Summer Undergraduate Research Program (SURP)

Kathleen Anderson 6/00-8/00
Kathleen Anderson 6/01-8-01

University of Pittsburgh, Dept. of Pathology,

Neuropathology of dementia conference - weekly (Fri 10-11)

University of Pittsburgh - ADRC Topics at Noon

X-34 and alpha-synuclein – New stains in Alzheimer's Disease 11/98
Lewy Body Pathology in Alzheimer's Disease, 11/01

Children's Hospital of Pittsburgh, Grand rounds

1996 - methyl malonic acidemia with hemi-cerebellum
2/13/97 - Pediatric AIDS with HIV encephalopathy
5/22/97 - 11 month-old boy with Hypotonia (Leigh's Disease)
3/18/98 - Becker's muscular dystrophy with severe cardiomyopathy
5/19/98 – Friedreich's Ataxia
10/15/98 – Spinal Muscular Atrophy Type I
2/2005 - Congenital Dystrophies – Pediatric Neurology

Other Presentations

Neurology Grand Rounds - 11-19-03 - CNS vasculitis

Pathology Noon Diagnostic Conference - 11-20-03 – “Some Bodies in the Brain”

AP Didactic Lecture – 11-25-03 - Neuropathology of Neurodegeneration

NP Didactic – 4-28-04 - ApoE4 and Lewy Bodies in AD

Ronald L. Hamilton, M.D.

NP Didactic - 3/31/2005 – AD Pathology in ALS and MTS and LB in AD
 Pathology Noon Diagnostic Conference – 8-4-2006: Tauopathies
 ADRC CPC 8-10-06
 ADRC CPC 11-30-06
 ADRC CPC 2-8-07
 ADRC 20th Anniversary meeting, “Neuropathology of AD:” 9-28-06
 ADRC Topics at Noon. “Tauopathies” 11-16-06
 ADRC CPC 8/16/2007
 ADRC CPC 11/30/2007
 Pediatric CPC 2/25/08
 DJ-1 in glioblastomas (NP Didactic conference) – 3/10/2009 (1 hour)
 Neuropathology review for Neurosurgery residents – 3/10/2010 (1 hour).
 AP Chief Residents didactic conference. 2 hour conference. Non-glial Tumors. Feb 25, 2014
 CMU graduate class: BioE 2630 – Methods in medical image analysis in neuropathology. April 4, 2014.
 Anatomic Pathology Grand Rounds, July 10, 2014 Chronic Traumatic Encephalopathy: an Update.

Clinical Conferences (recurring)

| | | |
|-----------------------------|--------|-----------------|
| ADRC Brain cutting | weekly | Tue 8-10 |
| ADRC Dementia signout - | weekly | Fri 10-11 |
| PUH – Neuropathology QA - | weekly | Wed 10-11 |
| CH Brain cutting | weekly | Mon 10-11:00 |
| CH Neuro-Oncology conf | weekly | Mon 11:30-12:30 |
| CH Gross autopsy conference | weekly | Tue 11-12 |
| CH Micro autopsy conf | weekly | Tue 1-2 |

University of Pittsburgh School of Medicine –
 2009 Brain Tumors – lecture to 1st year students
 2009 Klionsky summer research scholarship – Peter Kang (June-Aug 2009)
 Clinicopathologic correlations of chordomas
 2009 Monday 2 hour small group 3rd year (5-12 students)
 4/6/2009, 7/27/2009, 9/10/2009, 10/12/2009, 12/7/2009, 1/25/2010, 2/15/2010

RESEARCH

OTHER SUPPORT

ACTIVE

HAMILTON, R.

ACTIVE

R01 NS037704 (PI: Pollack) 9/1/98-1/31/17 0.7 calendar months
 National Institutes of Health \$105,970
 Role: Co-Investigator
 Title: Molecular Markers as Predictors of Outcome in Gliomas
 The major goal of this project is to further characterize the molecular features of tumorigenesis in pediatric malignant gliomas.

1R01 CA174858-01(PI: Pollack) 5/6/13-8/30/17 0.4 calendar months
 National Institutes of Health \$54,696
 Role: Co-Investigator
 Title: Peptide Vaccine-Based Immunotherapy for Children with Recurrent Ependymomas
 This project focuses on a pilot clinical trial of peptide-based immunotherapy for ependymomas, among the most challenging childhood brain tumors. The study will incorporate separate strata

Ronald L. Hamilton, M.D.

for posterior fossa and non-posterior fossa ependymomas. We will treat a total of 12 patients in each of the two strata with subcutaneous TAA epitope vaccinations every 3 weeks for 8 courses combined with topical imiquimod. Participants will be evaluated for adverse events, regimen limiting toxicity (RLT), and treatment response by clinical and laboratory evaluations and MR imaging. We hypothesize that vaccine-based immunotherapy will not only prove safe for the treatment of pediatric ependymomas, but will also demonstrate activity as assessed by immunologic and clinical parameters.

(PI: Pollack) 5/8/14-6/1/17

Child Brain Tumor Foundation
calendar months

\$10,487

1.2

Children's Brain Tumor Tissue Consortium

The CBTTC is a unique research platform in which tumor tissue is processed for comprehensive molecular (e.g., DNA, RNA, and protein) analysis using state-of-the-art methods and the data results of that analysis, together with new brain tumor models and relevant clinical information, are sent back to the participating institutions. In comparison to tissue banks, the CBTTC actively stimulates research by providing high-quality data that can be rapidly and efficiently analyzed by participating institutions.

PI: Pollack. 10% salary for Jonette Werley

OVERLAP No Overlap

Completed Research Support

National Institutes of Health

3/1/02 – 2/28/05

P30 MH52247-10 (PI: Reynolds) \$23,305

Intervention Research Center for the Study of Late-Life Mood Disorders

a supplement to the above grant to establish a brain bank to investigate the neuropathological substrate of late life mood disorders.

Role: Co-Investigator

R01 NS048595 (PI: Montine)

09/30/03 – 07/31/08

National Institutes of Health

Subcontract to the University of Washington on grant "Characterization of DLB: a Collaborative Study"

The major goal of this multi-institutional project is to investigate the role of ApoE4 alleles and other genetic polymorphisms in the Lewy Body Variant of Alzheimer's Disease.

Role: Co-Investigator

Brain Tumor Society

07/01/07-05/31/09

PI: Ian Pollack

JPA & Pediatric Low Grade Astrocytoma

The major goals of these two grants is to examine molecular markers of prognosis in pediatric gliomas.

Role: Co-Investigator

U10 CA13539-27 (Reaman (subcontract 6172) (Pollack)

1/1/06-12/30/09

NIH/NCI

Children's Oncology Group Brain Tumor Resource Laboratory

Ronald L. Hamilton, M.D.

This contract is providing infrastructure support for maintaining tissue processing and banking of high-grade gliomas.

Role: Laboratory Director

R01 MH47346 (PI: Zubenko) 12/1/04 – 11/30/09

National Institutes of Health

Morphologic/Neurochemical Correlates of Depression in AD

The major goal of this project is to better define the biological substrates of major depression in AD and to provide additional insight into the clinical biology of major depressive disorders affecting the elderly.

Role: Co-Investigator

P50 AG05133 (PI: Lopez) 3/30/85 – 3/31/15 0 calendar months

National Institutes of Health

\$71,764

Alzheimer Disease Research Center, Core C: Neuropathology

The three objectives of the Neuropathology Core are to (1) procure and bank brain from autopsies of ADRC patients and controls, (2) perform detailed neuropathologic analysis of all AD cases and (3) maintain well catalogued brain bank.

Role: Core Advisor

Child Brain Tumor Fund (CBTF) (PI: Pollack) 5/8/13-5/7/14

0.3 cal months (2.5% support) PITT subaccount #: 05.35206.xxxx.00000.709203.-----

P01 NS040923 (PI: Pollack) 7/1/02-5/31/13

1.20 calendar months

National Institutes of Health

\$22,074

Novel Strategies for Brain Tumor Therapy

The unifying hypothesis of this program project grant is that novel therapeutic approaches that take into account the unique features of central nervous system (CNS) tumors will have utility for preventing tumor growth and inducing tumor regression, and will potentiate the effects of conventional treatment approaches, particularly radiotherapy, for inducing glioma cell killing.

Role: Co-Investigator

Prior Grant Support

1995-1997 Murine Model of Retroviral Encephalitis
Children's Hospital of Pittsburgh Research Fund (\$50,000)
0% effort, 0% support

1995-1998 Blood Brain Barrier in HIV encephalitis (PI: Achim)
Co PI. 10% effort and salary (\$186,264)

11/98 PD Center Grant, Equipment \$6000
for freezer for PD Brain Bank (one time equipment funding)

7/1/98-6/30/99 Neurotrophic Factors in SIV encephalitis
Competitive Medical Research Fund (CMRF), \$25,000,
0% effort, 0% support

12/01/98-11/30/99 Parkinson's Disease Brain Bank
PI: Hamilton RL
Parkinson's Disease Foundation (\$24,899) 0% effort, 0% support

7/1/98-6/30/00 Molecular Markers of Prognosis in Pediatric Gliomas

Ronald L. Hamilton, M.D.

PAR 95-063, NIH
PI: IF Pollack
10% effort and support (\$263,311)

4/1/00-3/31/01: Alpha-synuclein Aggregation in Dementia With Lewy Bodies
PI: RL Hamilton
Parkinson's Disease Foundation Seed Money Grant, \$25,000 0% effort, 0% support

10/1/00-9/30/02 Millennium Agreement (Neuro Module)
PI: Rajiv Dhir
0% effort, 0% Support.
(\$25,000 per year for supplies, plus support for 100% Level IV Res Tech)

1/1/99 – 12/31/03 COG Brain Tumor Resource Laboratory
PI: Pollack, IF (\$5800) (subcontract 6172)
Co-I – 5% effort and support
NIH-U10 CA13539-27

3/01/02 - 2/28/05 - Supplemental Award to Establish a Late Life Mood Disorder Brain Bank
PI: RA Sweet (for supplement)
Supplement to 3 P30 MH52247-08S1 (PI: CF Reynolds)
Co-I : 5% effort and support

7/1/98-6/30/05 Morphologic/Neurochemical Correlates of Depression in AD
PI: G Zubenko
2.5% effort and support (\$20,000)

| | | |
|-------------------------------|---------------------|----|
| National Institutes of Health | 09/30/03 – 07/31/08 | 5% |
| R01 NS048595 (PI: Montine) | \$75,000 | |

Subcontract to the University of Washington on grant "Characterization of DLB: a Collaborative Study"
The major goal of this multi-institutional project is to investigate the role of ApoE4 alleles and other genetic polymorphisms in the Lewy Body Variant of Alzheimer's Disease

| | | |
|-------------------------------|-------------------|----------------------|
| R01 MH072947 (PI: Butters) | 12/1/04 –11/30/11 | 0.36 calendar months |
| National Institutes of Health | \$6,018 | |

Pathways Linking Late Life Depression to Mild Cognitive Impairment and Dementia
The goal of this project is to investigate the relationships among late-life depression (LLD), cognitive impairment and progressive neurodegeneration.
Role: Co-Investigator

| | | |
|-------------------------------|-------------------|----------------------|
| R01 MH072947 (PI: Butters) | 12/1/04 –11/30/11 | 0.36 calendar months |
| National Institutes of Health | \$6,018 | |

Pathways Linking Late Life Depression to Mild Cognitive Impairment and Dementia
The goal of this project is to investigate the relationships among late-life depression (LLD), cognitive impairment and progressive neurodegeneration.
Role: Co-Investigator

Seminars and Invited Lectureships Related to Research

Presentation of an Unknown Case (Herpes simplex brainstem encephalitis) to American Association of Neuropathologists Annual Meeting, June 1992: St. Louis, MO.

Ronald L. Hamilton, M.D.

Presentation of an Unknown Case (Varicella zoster virus encephalitis in an AIDS patient) to XII International Congress of Neuropathology, Sept, 1994: Toronto, Ont, Canada.

Presentation of an Unknown Case (Atypical neurocytoma) to American Association of Neuropathologists Annual Meeting, June 2002: Denver (presenter: Rafael Medina-Flores).

Other Research Related Activities

| | |
|------------------|--|
| 1995-2003 | Co-Director, Neuropathology Core ADRC |
| 2003-2012 | Director, Neuropathology Core ADRC. |
| 1995-2012- | Director, Neuropathology Brain Bank |
| 1997 - present - | Director of Neurohistology laboratory |
| 1997-present | Co-Director, Brain Tumor Resource Laboratory, Children's Cancer Group |
| 2001- 2009 | Director of Neuropathology Core of the Stephen Tuttle ALS Tissue Bank. |
| 2001-present | Co-Director, UP Brain Tumor Bank |

CURRENT RESEARCH INTERESTS

1. Molecular Biology of Brain Tumors

SERVICE

University and Medical School

Residency Committee (Pathology) – 1997 to 2008

Institutional Review Board 3/02 – 5/2005

'Member of the UPSOM Interviewing Committee' jan 2010-present

Member, UPMC Professional Practice and Ethics Committee Jan 2014 - present

OTHER

| | |
|------------------|---|
| 4/1996 - present | Case Editor - Brain Pathology, Case of the Month feature Case of the Month web site Increase to 2 cases per month 1/2007 |
| 10/99 | ad hoc reviewer, J Neuroscience |
| 1/2000 | ad hoc reviewer, J American Medical Association (JAMA) |
| 3/2000 | ad hoc reviewer, Neuropathology and Applied Neurobiology |
| 3/01 | ad hoc reviewer American Journal Pathology |
| 5/02 | ad hoc reviewer Neuroscience |
| 11/02 | ad hoc reviewer JNEN |
| 2004 | AANP Awards Committee, AANP, Cleveland |
| 2006 | AANP Awards committee, AANP-ISON San Fran |
| 10/2006 | ad hoc reviewer Eur J Neurosci |
| 2/2007 | Ad hoc reviewer Neuroscience |
| 2007 | Chairmen, Awards Committee, AANP Washington DC. (2 year term) |
| 7/29/2007 | ad hoc reviewer, Brain Pathology |
| 7/25/2007 | ad hoc reviewer Acta Neuropathologica |
| 10/19/2007 | ad hoc reviewer J Neuropathol Exp Neurol |
| 2008 | Chairman Awards Committee AANP, San Diego Annual Meeting |
| 2008 | ad hoc reviewer Brain Pathology |
| 2009 | ad hoc reviewer Pedi and Developmental Pathology |
| 2009 | ad hoc reviewer Amer. J. Pathol. |

Ronald L. Hamilton, M.D.

2014 – Featured in non-fiction book: League of Denial: The NFL, Concussions and the Battle for the Truth (Crown Publishing, New York). Chapters 8 and 10 detail my role in the discovery of CTE in NFL football players.

January 2015 – Consulted with Sony Pictures about movie CONCUSSION based on the discovery of Chronic Traumatic Encephalopathy (CTE) in American NFL football players by my student, Bennet Omalu and me in July 2005. I was also interviewed on the set by Sony documentary filmmakers for a bonus feature on the DVD: The Making of “Concussion.” The movie is scheduled to be released Christmas Day, Dec 25, 2015.

January 2015 – interviewed by Jeane Marie Laskas (who wrote the 2009 GQ article the movie is based on) for a companion book to be released with the movie, December 2015.

International Invitations

1998 – Invited lecturer at Barcelona-Pittsburgh ADRC meeting, “Dementia Today,” Barcelona, Spain (Oct 1998)

2000 – Invited lecturer at Barcelona-Pittsburgh ADRC meeting Dementia Today II”, Barcelona, Spain (Oct 2000)

2001 - Invited symposia speaker at 10th Congress of the International Psychogeriatric Association (Nice, France, Sept 2001). “Pathological Diagnosis of Dementia With Lewy Bodies” (Symposia Organizer, Ian McKeith)

2002 – Invited lecturer at Barcelona-Pittsburgh ADRC meeting Dementia Today III”, Barcelona, Spain (Oct 2002)

2003 – Symposium speaker “Dementia with Lewy Bodies” at International Psychogeriatric Associations meeting, Chicago, IL, USA, 08/19/03

2004 Invited lecturer at Barcelona-Pittsburgh ADRC meeting Dementia Today IV”, Barcelona, Spain (Oct 2004)

2006 Invited lecturer at Barcelona-Pittsburgh ADRC meeting Dementia Today V”, Barcelona, Spain (Oct 2006)

2008 Invited lecturer at Barcelona-Pittsburgh ADRC meeting Dementia Today VI”, Barcelona, Spain (May 2008)

2014 – Invited lecturer AANP annual meeting June 2014. What Every Neuropathologist Should Know: Molecular studies in metastatic brain tumors.

2014 - Invited as member of scientific committee International Congress of Neuropathology quadrennial meeting Sept 2014, Rio de Janeiro

2014 – Chair of Forensic Pathology Session, committee International Congress of Neuropathology quadrennial meeting Sept 2014, Rio de Janeiro

2014 – co-chair telepathology session with Dr. Wiley

2014 – Presentation – Chronic Traumatic Encephalopathy – update, International Congress of Neuropathology quadrennial meeting Sept 2014, Rio de Janeiro

2014 – presentation – Cases of the Month – 16 Years of Unknowns International Congress of Neuropathology quadrennial meeting Sept 2014, Rio de Janeiro s